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ABSTRACT

The study focused on the level and nature of low-income youth's ambition to achieve, the factors relating to varying degrees of ambition, and the extent to which group sessions with the mothers influenced the children's career thinking and planning. The study design included a baseline phase in which a large sample survey provided background information for analysis and for the second phase's design, and an experimental phase which included group meetings with the mothers. In the baseline phase, 217 children and their mothers were drawn from 3 communities in 1 county in the Appalachian region of North Carolina (regional sample totaled 1,412 mother-child pairs). The experimental group discussion program was designed to influence information, attitudes, and aspirations concerning education and occupations among low-income mothers, and indirectly among their children (7th and 8th graders) as a result of the mother's interaction with them. Data were analyzed with those from the regional sample (rural and urban Negro and Appalachian white subcultures). Standardized questionnaires were administered to both mothers and their children before and after application of the experimental program. Program content was designed to help mothers understand: their children's unique interests and abilities, the variety of work opportunities for their children, the relationship between education and occupations and between the children's interests and career possibilities, and their own roles in motivating their children toward career planning. (NQ)

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December, 1975 Tech. Bul. No. 233

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In the North Carolina Appalachian Area-

Baseline Data and Action Program

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In the North Carolina Appalachian Area-

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FOREWORD

This study, North Carolina 1063, "Influences on Occupational Goals of Young People in the North Carolina Appalachian Area," was a contributing project to Southern Regional Project S-63, "Influences on Occupational Goals of Young People in Three Southern Subcultures in the South." Other participating Experiment Stations and the subcultures studied were: Alabama, Mississippi, and South Carolina—Rural Negro; Alabama and Virginia—Urban Negro; and Kentucky and Tennessee—Appalachian Rural White.

The regional report appears in two publications, Information Series I, "Research Report of Baseline and Experimental Phases—Influences on Occupational Goals of Young People in Three Southern Subcultures;" and Information Series II, "Program Plans for Group Meetings." Copies of the regional compilation are available in limited quantities from the School of Home Economics, University of North Carolina at Greensboro, Greensboro, N. C. 27412. This North Carolina report includes aspects of the regional reports that contribute to an understanding of the state procedures and findings. Since in many instances it would not have been statistically sound to have analyzed data from the North Carolina sample alone, the significant regional findings are presented.

ACKNOWLEDGMENTS

Appreciation is expressed to the members of the Regional Technical Committee of S-63 for establishing the state and regional procedures used in this study; to the Regional Administrative Advisor, Dr. Kenneth R. Keller, North Carolina State University, under whose counsel the state and regional project was conducted; to the Cooperative State Research Service representatives, Drs. Mary Beth Minden, Paul Jehlik and Sarah Manning for their advisory role; to Dr. Charles Proctor, the consulting statistician; to Mr. J. C. Williamson, Jr., Director of the North Carolina Agricultural Experiment Station and his staff; to Dean Naomi Albanese, the Home Economics Administrator of the University of North Carolina at Greensboro, and to Dr. Mary Elizabeth Keister and Dr. Cynthia L. Bishop who assisted with preparation of the manuscript.

Special acknowledgment is made to personnel in the sample area who cooperated in all phases of the project: school superintendents, Frank Jones, Robert Edwards, H. D. Justice, and Walter Thomas; school principals, Truett Eller, J. P. Miller, Thomas Fowler, Paul Garland, Frank Anderson, and Orlena Williams; interviewers, Jeannette C. Davis, Clyde Eller and Pauline Shatley; and group leader, Virginia Roberts. Special appreciation is extended to the teachers, youth, parents and others in the community who participated in surveys and group meetings.

Recognition and acknowledgment must be made of the contributions of the late Dr. Richard H. Klemer. His meaningful guidance during the planning, data collection, and experimental phase of this study is reflected throughout the work and reporting of the project. Dr. Klemer was Professor and Chairman of Child Development and Family Relations, School of Home Economics, University of North Carolina at Greensboro, at the time of his death in September, 1972.

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Influences On Occupational Goals of Young People in the North Carolina Applachian Area-

Baseline Data and Action Program

INTRODUCTION

Career education is receiving much more attention today than it has in the past as some segments of the American population, particularly the low-income and minority groups, seek to improve their "life chances." If opportunity is to be more equal for all, action directed toward economically disadvantaged groups must have an impact among the youth as their personal characteristics and career patterns are developing.

Within the whole career education area greater emphasis is being placed on career guidance at a much earlier age. Leaders in education and labor are urging that general education and vocational education take a unified approach, beginning in the elementary years and continuing on through the junior college level. However, parental guidance in career education is extremely important in a unified approach. Concerned parents have an ever-increasing responsibility for providing both direct and indirect vocational information and guidance for their children. How parents affect children's vocational choices and what parents can do to help children improve their vocational prospects are critical concerns.

It was to those concerns that this study was addressed. Children's educational and occupational aspirations and expectations as related to their parents' aspirations and expectations for them were analyzed. The study considered achievement motivation and career planning. It was oriented toward intervention techniques for increasing the career knowledge of parents and children. Through the use of one of these techniques (i. e., program plans for parent groups) parent educators can help parents recognize the full effect they have on their children in job choice and be more effective in working with their children's vocational growth and problems. The long-range objective may be stated as:

> to help youth achieve educational and occupational goals that will maximize their life satisfactions and move their communities and areas toward modernization, development, and a higher quality of life (Coleman, 1973).

Background

The research presented here was an outgrowth of two earlier North Carolina[1] and Southern Regional[2] research projects. The present study, however, represents a new thrust in that children were studied at considerably younger ages than in other studies dealing with vocational development, were followed over a period of time, and represented low-income areas and families. In these earlier studies rural youth and even urban youth of rural background were found to have somewhat lower educational and occupational goals than urban youth, and their parents were found to put less emphasis on education. Also, it was found that the lower the level of living of the family, the lower the goals of the youth, and the lower the urging and assistance of parents toward high educational and occupational goals.

Thus, at a time of increased concern for deprived peoples and areas, increased emphasis on rural development, and a heightened realization that better opportunities for deprived youth were essential, it was decided that the present study should focus on low-income youth and their parents. An experimental design was planned to test some procedures for increasing occupational and educational information among low-income youth and their parents.

From general observation and existing research it appeared that one problem of youth career planning was that serious consideration about education and careers usually came too late to maximally influence the youth's preparation. Failing to choose a goal early enough and to generate motivation to work toward it during adolescence seemed to have a negative impact among youth from low-income families who frequently become high school dropouts if they are not motivated and achieving in school. For these reasons the experimental programs were focused on youth in their junior high years.

Design and Rationale of the Study

Values, child-rearing practices, and the child's self-concept have appeared in the achievement motivation literature as important variables which are culturally determined. There is even evidence of subcultural differences in these variables between ethnic groups, social classes, and people living in rural and in urban areas. Therefore, North Carolina appropriately joined forces with other states in the Southern region who were studying three low-income subcultures, namely rural white Appalachian, rural Negro, and urban Negro. The North Carolina portion of the study focused on the white rural Appalachian population. Samples as economically and culturally homogeneous as possible were selected so that an assessment could be made of the relationship of achievement motivation to other variables.

[1] Sperry and Kivett, Bulletin 163; Sperry and Kivett, Bulletin 186 (See references)
[2] Southern Regional Technical Committee, Bulletins 107 and 136 (See references)

Research has shown repeatedly that youth attribute more influence and communication on careers and education to their mothers than to their fathers. It appears that mothers more frequently assume the role of discussing and helping the child with such matters, as they also do for child rearing. These reasons and the fact that low-income families frequently are composed of mother-child units (father-absent) led to the decision to operationally define "parents" as "mother" and to obtain data only from mothers and children.

The first phase of the study produced baseline data from a large group of subjects in the sample area. Later a sub-sample of the same mothers and children were studied. For the experimental group of mothers a series of three group meetings were promptly arranged to focus on helping a child plan for education and a career. The group meetings were followed three weeks later by another interview with the experimental mothers and children and with mothers who comprised the control sample.

The design and time schedule was such that the experimental program came during the children's mid-adolescent or junior high years. This offered the advantage of obtaining the first data from the children while they were still in elementary school, an age-level at which little career-planning and aspiration research has been done since most studies have focused on the high school years. The baseline observations were made when the youngsters were in fifth and sixth grades because this was the earliest age at which self-administration of a questionnaire seemed feasible.

Several considerations were involved in deciding to carry out the experimental programs with the mothers rather than directly with the children. One was that although the schools have some responsibility for providing career and occupational instruction and counseling the family, peer and community influences are known to be quite influential. Another consideration was that the "already established mother-child channels of communication and influence might be utilized" for relating career information and stimulating the youth to supplement existing school programs. Also, previous research had suggested that group sessions with the mothers rather than individual work might be more effective in "achieving and implementing commitment to discuss careers with children" (Coleman, 1973).

Generally, the overall research question guiding the study may be stated as:

> What are the level and nature of ambition and motivation to achieve among youth in these low-income subcultures, what factors are related to varying degrees of ambition, and to what extent may children's career thinking and planning be influenced by group sessions with their mothers? (Coleman, 1974).

REVIEW OF RELATED LITERATURE

The review of literature first considers topics related to parental influence and role in children's vocational choices: role models for achievement, self-concept, interests and achievement, environment for vocational development,

and job information. The second section briefly describes the history of parent education movements, particular studies dealing with low-income groups, methods used in parent education, and the evaluation of parent education programs. Last, the American career education movement is presented with emphasis on its community and family components.

Parental Influence and Role in Children's Vocational Choices

Few parents seem to recognize the full effect they have on their children's job choices. Interested and supportive parents have an ever increasing responsibility for providing both direct and indirect vocational guidance and information for their children. Major areas of parental influence on job choices have been identified in vocational guidance and child development literature. Even though these areas are not wholly discrete, they provide a basis for analyzing and synthesizing how parents influence their children and what parents can do to improve vocational choices. Parents serve as role models, affect their children's self-concept, motivate their children's interests and achievement, provide an environment for vocational development, and give job information.

Parents Serve as Role Models for Achievement

The family tends to function as a primary reference group and to a large extent defines the child's view of the occupational world by being the work role models with whom he identifies (Burchinal, 1961; Jacobsen, 1971). In influencing the occupational plans of young people no other group comes even close to parents as vocational choice affectors, although peers, friends, teachers, and counselors sometimes appear as "reference group" influences (Edleson and Crowe, 1960). Werts (1967) reported that certain types of fathers' occupations were associated with similar career choices by sons. However, this role-model influence is not limited to males. Brookover and Edsel (1964) found that youth of both sexes sought their parents' advice and then attempted to meet their expectations, trying to satisfy parental aspirations in academic achievement, educational planning and occupational achievement.

Personal habits and attitudes that parents display have an effect on task orientation and achievement behavior. Coombs and Davies (1966) stated: "Shielding a youngster from work is almost certain to render him somewhat incapable of facing work effectively." In addition to knowing how to work, a youngster benefits from having learned basic social skills. The type of job and society in which one feels comfortable may reflect the social skills of one's parents.

Elder (1963) expressed the belief that children will gain mastery of problem situations if interested parents provide them with excellent standards and supervised liberty to explore, thus acquiring confidence. Learning how

to master situations early in childhood may help one acquire concepts of oneself as a productive person (Super, 1953, 1957).

It is understandable that parents can be primary role models, because they are important to their children and because they are with their children much of the time. They have a major opportunity to instill achievement oriented attitudes crucial to vocational success; but the question of many parents is "What can I do to improve vocational choice?" Jacobsen (1971) identified some types of parental encouragement varying from cursory contacts to involvement in on-the-job training procedures. Forms of parental encouragement may include conversations about jobs in general, discussions of the parents' specific jobs, a consideration of others' roles and planned observations accomplished by touring job sites. Formal learning from specialized courses and direct experiences on-the-job (part-time or the equivalent) result from more intense parental encouragement.

If early career development is to be the emerging trend, an important step is for parents to begin early helping the child set realistic aspirations and expectations in relation to his interests and abilities. One way to provide opportunity for developing interests is to cultivate children's achievements in compatible areas of success and satisfaction. Bartlett (1966) said that parents should avoid the "danger of seeing their geese as swans" and encourage them to set their career sights at suitable targets.

Through an overemphasis on technology the "human" side of the career equation—personal tastes and values—is often neglected (Norwood, 1961). Performing proficiently on a job and realizing satisfaction from that job do not always accompany each other—this intangible "human" side seems to have no prescription for its accomplishment. Nevertheless, parents who demonstrate job satisfaction and reward a child's efforts are encouraging this important aspect of career development. (Shoffner and Klemer, 1973)

Parents Affect Their Children's Self-Concept

"To enlarge what a man can do, you must first enlarge what he thinks he can do." From this old maxim one can find strong reason to believe that close attention should be given to how an individual's self-concept influences occupational aspirations and expectations. Parental interactions including rewards and punishments for a child's efforts may help a child develop either an incompetent or an able conception of himself.

Self-conceptions influence both academic performance and vocational development. A child's functioning at school and even his willingness to stay in school are highly influenced by the view he holds of himself, with positive feelings being significantly related to school achievement and a poor self-concept being accompanied by deficiencies in school performance (McCandless, 1967; Roberts, 1967; Haller, Burchinal, and Taves, 1963; Endres and Evans, 1968). One who underestimates his academic ability may not strive for advanced training and thus may limit his vocational potential.

An individual's self-image and actions are affected by what significant others expect of him. Students are thought to use parental appraisals and

"socially defined conceptions of self" as the "looking glass" by which they form self-appraisals (Coombs and Davies, 1966). In task oriented self-perceptions one may tend to see himself as others see him and decide on occupational alternatives according to what he believes others think he can accomplish. One's success behavior, based on self-expectations, has to achieve some degree of consistency with expectations of parents, other family members, peer groups, teachers, potential employers, and others who are in control of his entry into occupations (Anderson, Mawby, Miller and Olson, 1965). Accepting a child's interests and abilities, encouraging activities that lead to success, and praising a child for his accomplishments can help to establish a child's positive perception of himself (Shoffner and Klemer, 1973).

Parents Motivate their Children's Interests and Achievement

One way the family functions in the development of a child's occupational motives is by providing opportunities for achievement. As the child achieves success at something, he is motivated to achieve again. Each successive approximation toward a goal provides a building block for later use when levels of achievement become more difficult.

Providing opportunities for motivation toward high-level achievement call for allocations of time and energy on the part of both the parent and the child (Norwood, 1961). Parental provision of resources is another motivating factor for encouraging young people to continue their education. No matter what the avenues of assistance, the important thing is making sure that the child understands what is realistically possible for him to achieve.

Motivation toward a more general education is a part of maintaining a child's interest and achievement. Today, changes in technology are occurring more rapidly than ever before and thus there is need for general education rather than for specific career training. It has been predicted that the average future worker will enter and leave several different occupations and be retrained for several positions during his lifetime. By providing opportunities for developing a variety of interests, parents will help prepare the child for accepting the necessary requirements that will allow him to keep pace with changing occupational situations; and they will help him gain the educational tools of understanding and interpretation that will enable him more readily to cope with changing conditions (Anderson, Mawby, Miller and Olson, 1965). Simulation games for all ages involving life, education, and career choices can motivate the young person to make decisions which can later be particularized to good vocational decisions (Shoffner and Klemer, 1973).

Parents Provide an Environment for Vocational Development

The development of achievement potential fostered by certain child-rearing practices may be an antecedent of making successful vocational choices. If paternal dominance, low standards of excellence, indulgent attitude, and pressure for early achievement are conditions that discourage

motivation (Elder, 1963), then the opposite behavior might nurture achievement potential.

Characteristics of the developmental climate in which more adequate vocational choice should take place are sharing ideas and confidences; being approving, trusting, affectionate; being interested in and encouraging (but not pressuring) achievement; and being less restrictive and severe (Morrow and Wilson, 1961). Parental attitudes toward the child (rather than specific parental techniques) shape the motives that underlie the making of vocational choices (Roe, 1964). Three climates in the parent-child relationship are associated with vocational choices: excessive emotional concentration on the child—being overdemanding and overprotecting; severe avoidance of the child—being rejecting or neglecting; and acceptance of the child—being loving or casual (Roe, 1964).

Providing an environment that will foster achievement involves the parents' understanding of the vocational development process, helping the child in the area of relationships, and teaching him to use his leisure time wisely.

Understand the vocational development process. Knowing that vocational development begins early in childhood and progresses through certain stages may enable parents to help their children more effectively. Ginzberg (1951) postulated five periods in this developmental progression: fantasy, tentative, exploration, crystallization, and specification. In the *fantasy* period (around 11 years of age) the child is subjective and allows himself to believe he can become whatever he wishes. The relationship between choosing a vocation and intellectual or other personal qualifications is not considered. The parent who understands vocational development will understand that the occupations explored in this period are usually those that the child observes while learning about his community and that those choices will almost always change as the child matures, even though he may eventually come back to one of the fantasy choices. Knowing this phenomenon the parent can use these choices to teach variety.

In the *tentative* period, the 11 to 17-year-old becomes increasingly aware of qualifications for occupational entrance, interests, values, abilities, and training. His thoughts shift from simple consideration of compatible interests to consideration of ability and training prerequisites; and then the process continues to a consideration of personal values in making a choice. Parents can be alert to guidance opportunities if they know this transition. Moreover, they may direct young people to counselors and resource people who can provide specific help in relation to individual interests and qualifications. Breadth and insight can be added during this serious exploration process through publications about work and education in general, field trips, and working at summer jobs or volunteer activities.

In the *exploration* phase, which begins around the end of the seventeenth year, the individual starts working out a suitable plan. Usually, he first acquaints himself with alternatives, takes courses and so forth. Next, in the *crystallization* phase, he makes a commitment to one choice. Finally, in the

specification phase the individual links a decision to reality when a selection is made.

Havighurst (1964) advanced a similar developmental theory by merging Super's concepts of vocational life stages and vocational developmental tasks with Erikson's psychological tasks to form a model of vocational development. This model, which begins when the child is around age five and extends through the age when one becomes a productive person, is divided into the following four tasks:

Age	Stage of Vocational Development	Representative Vocational Developmental Task
5-10	Identification with a worker	Concept of working becomes an essential part of the ego ideal
10-15	Acquiring the basic habits of industry	Learning to organize one's time and energy to get chores and school work done
15-25	Acquiring identity as a worker	Choosing and preparing for an occupation
25-40	Becoming a productive person	Mastering the skills of one's occupation

A parent who is aware of these developmental stages can be alert to help children with specific tasks involved.

Interpersonal relationships. A crucial aspect of the vocational developmental environment is learning how to get along with others. "Most individuals, though they be Ph.D. or seventh grade level, lose their jobs because they do not know how to cooperate with other people" (Peters and Hansen, 1966, 3).

A harmonious atmosphere in the home is thought to be the basis for constructive interpersonal relationships. It may help parents to know that the way the child reacts with family members is an indication of the way he will act with co-workers.

Helping the child use leisure time wisely. With the trend toward a declining work week and a life oriented to leisure, it is possible that in the future work may no longer be the dominant concern of the individual (Burchinal, 1961; and Peters & Hansen, 1966). Thus, parents may find it increasingly important to guide children toward satisfying leisure time activities that complement their vocational choices.

Parents Give Job Information

The better young people are informed about job requirements and job opportunities the greater success they may have in vocational choice. Parents can play an important role in this area, but they need to possess more career

information than that which usually accompanies their own experiences or the occupations of friends. They may have to "take the trouble to inform themselves" by maintaining a link with the school (teachers and counselors) through conferences and through participation in programs where members of various career groups undertake to bring parents up-to-date (Bartlett, 1966).

Some programs in parent education for vocational choice seem to point to group meetings as one effective way to help parents get information—"youth development through an action program for parents" (Anderson, et al., 1965). Methods and media such as radio, television, newspapers, direct mailing, small group discussions, and other adult education techniques have been used. In such programs objectives were: (1) to facilitate the transmission of existing knowledge about future occupational opportunities simply and directly to parents; (2) to supplement established counseling and guidance efforts with youth in schools, colleges, and churches; and (3) to set up alternative channels for transmission of information to parents on a continuing basis. The latter objective, providing information on a continuous basis when the parents need it, is in keeping with the developmental process theories.

Some experimental parent education programs have been associated with changing the behavior of parents and their children (Endres and Evans, 1968). Several advantages are gained in providing parents with educational-vocational information through group meetings. People with similar goals can share and interchange ideas, feeling comfortable and able to talk about their children's needs because they see that others have similar problems. A group meeting is very efficient; much can be accomplished in one hour that would require many hours with individuals. There is also opportunity to use people in the community as speakers. During a series of meetings employment personnel, vocational counselors, community planners, and parents can focus on local job opportunities and problems in relation to the employers and youth in any local area (Shoffner and Klemer, 1973).

Parent Education

Parent education programs designed to help parents develop greater competence in child-rearing tasks have existed in the United States for many decades. These programs arose from the growing belief on the part of many that better ways of child rearing existed than those traditionally prescribed and the recognized needs of parents. Brim (1959) defined this movement as "an activity using educational techniques in order to effect change in parent role performance." Parent education has been concerned with engineering a fundamantal change in a major role in American society. The parental role has been transformed from one guided by cultural tradition and internalized values to one in which the parent must become his own judge of good and bad, and must seek to develop a highly conscious, rationally determined role performance (Brim, 1959).

Varieties of parent education programs have been used toward many ends. According to Brim (1959), the primary objectives of parent education programs which are generally acknowledged as successful and of outstanding quality are to make the parent more conscious of his role performance, to make him more autonomous and creative, to improve his independent judgment, and to increase the rationality of the parent's role performance. The effort of such programs is to improve the decision-making processes of parents both in the parent's choice of ends in child rearing, and in his selection of actual child training practices. This objective is sought by providing the parent with information both on children and on parents and by providing educational settings in which parents can discuss or individually think through with conscious deliberation the ends they will seek, and the means they will employ.

Characteristics of Persons Reached by Parent Education Program

While fathers are not untouched by parent education programs, proportionately more mothers than fathers are reached (Brim, 1959). In reporting on parent education for low income families, Kraft and Chilman (1966) noted that no fathers were encountered in any program recorded. Even when the leaders were men and the program was built around male interest, few, if any, fathers responded.

Assumptions that parental behavior during the period of early childhood is more influential on the child's physical and mental health during later years has resulted in directing parent education programs more frequently to parents of younger children. This is especially true of those programs using mass media methods of education. However, Witmer's review (reported in Brim, 1959) of discussion group membership showed substantially greater enrollment in groups concerned with pre-adolescence.

Data spanning a 25-year period clearly demonstrate a direct relationship between socioeconomic status and amount of exposure of parent education activities. Few were from rural areas. Data from the White House Conference National Survey of about 3000 families were used to compare percentages of each social class exposed to various parent education techniques. It was found that exposure to such educational techniques as books, pamphlets, and magazines read, radio talks listened to, articles on child care read in newspapers and magazines, and attendance at child study or discussion groups, varied directly with socioeconomic class (Brim, 1959). However, after a 20-year lapse in research of this type, a recent study of mothers found no class differences in reading parent education materials in newspapers and magazines; however, a significant difference favoring middle class mothers in the mention of specific books was found (White, 1957). Stendler's (1951) data from a small sample suggested that lower class parents may more frequently refuse to go to school for parent-teacher conferences.

According to Kraft and Chilman (1966), efforts to involve the lower class parents have met with varying degrees of success. Parents at this socio-

economic level often have deeply imbedded fears and anxieties about public programs of any kind and educational programs in particular, and they are reluctant to participate in any activities associated with such programs. Furthermore, individuals at lower socioeconomic levels are often nonverbal and have difficulty with effective verbal communication. As a result, efforts that employ verbal skills and conventional teaching methods have largely met with failure.

Chilman and Kraft (1963) suggested that because low-income families are often reluctant to attend meetings, parent educators must go 75 percent of the way, inviting them through telephone calls and home visits, perhaps beginning with a party, then developing programs which should ideally maintain a kind of open entrance and exit door for members, with these programs available to them for at least two or three years.

Chilman and Kraft (1963) also stressed the value of using local indigenous leadership—leaders who possess such characteristics as a mature capacity for motherliness, a sense of dignity and strength, creativity and flexibility, enthusiasm and energy, the ability to translate intellectual material into practical experiential terms, and an understanding of the psychological and cultural characteristics of the groups. Such leaders serve as role models that group members can hope to emulate. They also found that discussion groups went well when members were active participants in planning the program as well as in the discussion itself. Discussions that focused on member-perceived day-to-day problems seemed to be most popular.

A survey reported by Chilman (1964) uncovered no projects with experimental groups which were designed to measure the effectiveness of parent education with low-income families, but a few demonstration projects dealt indirectly with the effectiveness of such parent education programs. These demonstrations offered slight or no evidence that parent education was effective in altering attitudes or behavior of low-income families.

As reported by Hodson (1970), one of the goals of year-long parent involvement activities planned and implemented for the Chambers-Tallapoosa County (Alabama) Head Start from 1967 to 1970 was to provide a means of increasing the parents' understanding of their children and of themselves in relation to their children. From a list of approximately 630 families with children eligible to attend Head Start, 53 percent were asked to become parent group leaders and were assisted in developing leadership skills. Program content for the meetings was decided upon by parents. The parents' evaluations of their experiences in group meetings indicated that they saw them as valuable and worthwhile. Results from the Hereford Parent Attitude Scale designed to measure changes in attitudes of parents toward their children showed measurable changes in the parental attitudes of discussion group participants with more of their scores ranking near the upper end of the scale. Parents who attended the parent-led discussion groups, as contrasted to those who had attended none, appeared to be more confident of their ability to deal effectively with problems; they viewed their children's behavior more as the result of environmental or parental influences and less as a result of natural, inherent, or predetermined causes; they were better

able to accept their children's behavior and needs, and were less likely to reject their children; they were more able to trust their children and were less likely to feel that their children had to be watched and were not to be trusted (Hodson, 1970).

Methods Used in Parent Education

Hereford (1963) gave consideration to the methods employed in parent education. He maintained that the main educational problem is not information-giving, but one related to the difficulties arising from attitudes, feelings, and emotions. Therefore, he considered the prime goal of parent education to be finding the appropriate method that would lead to attitudinal change and, in turn, to behavioral change. Although he recognized the importance of method, he further stated that no universally effective method exists for educating parents. He outlined three basic methods which have been successful when appropriately applied. These are mass media methods (television, radio, books, pamphlets, magazines, newspapers), individual counseling procedures, and group discussion methods.

The group discussion method, frequently used in parent education, is based on two main assumptions. The first is that changes in parenting behavior can occur only when parents are aware of a problem, feel the need for solving it, and are provided with an opportunity to deliberate upon methods of attacking and solving the problem. The second assumption is that only when parents feel valued, accepted, and free from threat, when they feel competent and convinced that they can effect changes in their environmental situation (Hodson, 1970). Even nonprofessional discussion leaders have demonstrated success.

Evaluation of Parent Education Programs

Although there have been scattered attempts to evaluate the effectiveness of parent education programs, such as those reported here, evaluation has come late to this field. In addition, much of the evaluation has been critized as unsound because the evaluation has relied heavily on participant assessment rather than on observations and reports by unbiased and uninvolved observers (Endres and Evans, 1968).

Recognizing that the amount of evaluative research in parent education was practically negligible and lacking in quality, Hereford (1963) and his associates set out to develop and establish in a community a workable method of helping parents in their relations with their children. Their additional goal was to evaluate this method in terms of the resulting attitudinal and behavioral changes. They conducted a four-year study in selected elementary schools in Austin, Texas, between 1955 and 1960. Drawing subjects from three schools, they assigned them to one of four categories: (1) Experimental Group (parents who attended at least one meeting of a discussion-group series); (2) Lecture Control Group (parents who attended at least one of a series of lectures by experts on parent-child relations, but did not participate

in discussions); (3) Nonattendant Control Group (parents who registered for either a discussion group or a lecture series but did not attend); and (4) Random Control Group (parents who did not register for or attend either the discussion group or the lecture series).

The researchers hypothesized that parents who attend a series of group discussion meetings on parent-child relations would show positive change in the measurement of attitudinal and behavioral dimensions, and that children of these parents, although not directly involved in the program, would also show positive change in the measurement of the dimension of child behavior. It was further hypothesized that positive change on the part of parents (and their children) would be greater among participants in the discussion groups than among participants of the other three groups. The researchers also hypothesized that the number of discussion meetings attended, the quantity of participation, and the frequency of personal references would all be positively related to the degree of positive change in parents who attended the discussion groups. The authors concluded from the data that the attitudes of parents who attended discussion groups showed significant improvement over those of the control groups.

In a similar study, Endres and Evans (1968) examined the effects of a parents education program on knowledge, attitudes, and overt behavior of parents and on the self concepts of their children. At the conclusion of the study, the data showed that the experimental group parents manifested significantly greater knowledge, but showed no significant difference in overt behavior. The authors did, however, find a prominent attitude difference between those parents who had no parent education and those who had. The children of parents in the experimental group were significantly different from the other groups in perceiving themselves as doing well in school, being happy, and being satisfied with themselves as they were (Endres and Evans, 1968).

Another recent experimental effort in parent education for vocational choice includes meetings as one effective technique. A group in Michigan piloted an adult education program called "Career Occupational Guide" built around the theme "youth development through an action program for parents" (Anderson, Mawby, Miller, and Olson, 1965). Materials were provided for parents of all high school students in a multi-county area. The program utilized radio, television, newspapers, direct mailing, small group discussions, and other adult education techniques. The overall objectives were: the transmission of existing knowledge about future occupational opportunities simply and directly to parents; the supplementing of counseling and guidance efforts with youth already established in schools, colleges, and churches; and the setting up of alternative channels for transmission of information to parents on a continuous basis.

Brim (1959) affirmed that the issue of the effectiveness of parent education as a change agent remains unresolved at the present time. He predicted that in the absence of conclusive evidence, the arguments seem likely to continue. Brim further suggested that the involvement of critics of parent education,

parent educators, and independent social scientists interested in testing theory in this continuing debate may lead to increased interest and a deeper understanding of parent education as a modern social movement.

Career Education

Career education is a relatively new concept currently being advanced through educational reform in the United States. A U. S. Commissioner of Education has described this concept as "a new order of education concerned with the usefulness and self-realization of every individual" (Conley, 1972). Career education is seen as a process of self-development, one that helps a student understand both himself and the world of work. It imparts information about specific educational and job requirements, about entry and progress in educational pursuits, and assistance in the choice of a vocation.

The underlying assumption is that career education is an ongoing process through which the individual reaches an ultimate career decision after a series of experiences and resultant decisions over a period of years. Because these decisions are not reached at any given moment, a career education program involves a sequence of experiences that continue until the student completes the "educational gamut" and establishes himself in a career. Conley (1972) stated that "the career education program should be sequential, building upon vocational concepts at each grade level and implemented throughout the traditional curriculum."

In addition to providing job information and skill development the well-implemented career education program helps students "develop attitudes about personal, psychological, social, and economic significance of work" (Conley, 1972). Extensive guidance and counseling activities assist the student in developing self-awareness and matching his interests and abilities to a potential career. The ultimate goal of career education is that every student will develop necessary competencies for life and for making a living while developing appropriate attitudes toward work.

Community Component of Career Education

A concept of career education encompasses the idea that "learning will not be reserved for the classroom, but learning environments for career education will also be identified in the home, the community, and employing establishments" (Hoyt et al., 1972,9). Since in most rural areas the school is the focal point of the entire community, it is important that community members be involved in developing the career education program. This means including the parents in addition to other groups and agencies. Community support can be sought on two levels: (1) general community or business support and (2) expertise in a specific industry or a particular occupational field. Local business can fulfill its role by providing the students with opportunities to observe working situations and to engage in actual employment.

Conley (1972) summarized the principle underlying the community's involvement as "perhaps its most attractive virtue."

> Community involvement calls for the sharing of information, materials, ideas, and technology in career education among schools and communities at all levels. It provides an alternative to creating new and possibly duplicating institutions. It enables the rural school administrator to make use of materials and equipment which the small school cannot afford (p. 3).

Apparent throughout the literature on career education is this idea of coordination and sharing to reach goals. It is even woven into the discussions of the guidance aspects of the program. Thus, the first action step in implementing career education is to organize an "interaction network" of interested groups. Promotional activities, then, need to do more than create public awareness of career education. They should stimulate considerable interest throughout the community.

Family Component of Career Education

One of the most important components in career education is that which "recognizes and capitalizes upon the interrelationships among the home, the family, the community and the occupational society" (Hoyt et al., 1972). The home is a work setting, being the basic consumption unit of products and services of the community. Basic attitudes toward work and productivity are formed in the home and family experiences are a major influence on occupational aspirations. Thus, it seems that planners of career education programs must identify "parents and organizations with a particular concern for the home and family" as one group of principal agents in moving career education forward.

Involved in the home and family component of career education are three major thrusts (Hoyt et al., 1972):

> One is concerned with increasing knowledge among parents concerning home and family living. A second is concerned with changing parent attitudes that currently hold negative implications for attaining the goals of career education. The third is concerned with active involvement of parents in the total career education program. (p. 11)

Families can form a powerful community force which becomes an ally in furthering educational objectives. Conversely, it could become a formidable foe if the plans for implementing career education programs were not carefully explained and understood. Many parents would offer resistance unless the programs were extremely well run. Hoyt et al. emphasized this idea, stating:

> In short, unless the home and family structure is made a major component of career education, many parents will regard it the same way they currently view vocational education; i.e., as a program needed in schools, but one that is for the children of other parents (p. 111).

Perhaps, planning should include recruiting interested parents from the community for participation on a career education advisory committee.

The tremendously powerful potential of the family can further the objec-

tives of career education. Traditionally, changes in American education have succeeded because of parental support. Career education is no exception.

> Thus, to the extent that the goals of career education are pictured as making work possible, meaningful, and satisfying to each individual, the home and family structure stands as a potent force for attaining or defeating attempts to reach that goal (Hoyt, et al., 1972, 112).

Career education is becoming a crucial issue in a society such as ours that operates under a work ethic combined with an idea of individual freedom of choice. An overemphasis on college degrees, when they are available to relatively few, has resulted in a lack of emphasis on career education for all. The massive job of career education is just getting started.

BASELINE PHASE METHODS AND PROCEDURES

The procedures[3] used were in accordance with those established by the Southern Regional Technical Committee for Family Life, S-63, of which North Carolina was a participating member. A complete study involving either the Appalachian rural white or the urban and rural Negro subcultures was conducted in each of the seven participating states. Data were then combined for regional analyses. The North Carolina portion of the project dealt with an Appalachian rural white sample.

Selection of Sample and Location

A North Carolina county in the Appalachian mountain area was selected because it met the selection criteria established by the committee for rural low-income Appalachian whites and was similar to areas chosen by other regional members studying the same population. All sample areas were over 35 miles from a large city, and none of the sample members lived within towns of over 2500 population. There were no heavily industrialized areas employing local residents. Only four mills were within 30 miles of most of the sample (one manufacturer of electrical parts, one furniture factory, one textile mill, and one poultry processing plant).

School sample. In school selection, consideration was given to the requirements of the experimental phase in which it was desired to have at least 50 students per school in order eventually to have sufficient cases to permit formation of experimental and control groups. In selecting the county, availability of Extension personnel and a teacher qualified for and interested in participating in the forthcoming experimental phase were considered. Three schools in three distinct geographical locations in the county were selected offering a total of nine classes (four fifth grades and five sixth grades) with 279 students.

[3] For detailed explanations of Methodology refer to Southern Regional Technical Committee for Family Life, *Research Report—Baseline and Experimental Phases*, Information Series I (Note references in this report).

Mother-child sample. Researchers administered Otis-Lennon tests of mental ability and Student Survey Forms to all the available students in their classrooms. Subsequently, questionnaires were eliminated for children fitting the following descriptions: those with major physical disabilities; those with serious chronic diseases, or serious mental handicaps; those from backgrounds or living situations obviously unrepresentative of the subcultures (high status professional parents, both parents college graduates, wealthy families); foster children wards of the state in boarding homes; children not living with their mother, stepmother or adopted mother. Of the 279 students, 52 were omitted after the first questionnaire administration—20 had brothers or sisters in the study, 9 moved before interviews with the mothers were conducted, 7 were not living with their mothers, 7 were either physically or mentally handicapped, and 9 of the original list were absent from school on the day the questionnaires were completed.

Baseline data from the mothers were collected during home visits by three interviewers from the survey area. Interviewers were supplied with a detailed manual of procedures and trained by university research personnel under whose direction they worked. One interviewer did substitute teaching in the local elementary schools and the other two were homemakers.

Before visiting the home, the interviewer called for an appointment if the respondent had a telephone; otherwise, the interviewer went to the home for the purpose of introducing the project, requesting cooperation from the mother, and arranging for an appointment at which time the Mothers Survey Form could be administered. During this first visit most questionnaires were completed. If not, the interviewers were able to make an appointment to return. Questionnaires were completed for a total of 217 mother-child pairs.

Description of the Instruments

Two questionnaires developed by the regional committee were used with the N.C. sample. Both instruments included items developed by the regional committee along with some sub-scales of published questionnaires.* The "Survey of Student Plans for Work and School" (for fifth and sixth graders) included questions relating to educational and occupational aspiration and expectations, academic (Elder, 1962) and achievement motivation (Weiner, in McClelland et al., 1953), independence training (Elder, 1962), self-concept (Lipsitt, 1958), and the child's perception of the mother's behavior (Bronfenbrenner, 1960; Siegelman, 1965 and 1966). The interview form, "Mother's Survey of Occupational and Educational Goals for Children," included questions on educational and occupational aspirations and expectations in terms of what the mother desired for her child, achievement values (Rosen, 1964), anomia (Srole's Scale in Bonjean, 1967), and characteristics that the mother valued most in her child (Kohn, 1969).

* Copies of the questionnaires and additional summary information on the sources of the items may be obtained by writing the author at the School of Home Economics, University of North Carolina at Greensboro, Greensboro, North Carolina 27412.

Summary of Study Variables

In consideration of the relationships of the variables with one another, the analysis was organized around a causal ordering of the 23 study variables from dependent to independent. This ordering of variables with acronyms and a brief verbal description is shown in Table 1. This table will be helpful reference to the reader throughout the discussion of the analysis and results.

Description of Baseline Sample

The information presented in this section is based on the data collected during 1970 in a county located in the Appalachian region of North Carolina. Data were from 217 rural white boys and girls in the fifth and sixth grades and their mothers. Descriptions of the baseline subjects include the following:

(a) demographic factors—sex, grade in school, age, family composition and household size, parents' educational level and age, and children's IQ scores;
(b) employment factors;
(c) exposure of family members to the larger society; and
(d) information on the children's educational and occupational aspirations contrasted with their expectations as well as with the mothers' educational and occupational aspirations and expectations for their children.

Occasionally the N. C. sample will be compared with data from other subcultures included in the regional study of which this project was a part.

Demographic Factors

Distribution by sex, grade level, and school. The boys and girls in the study were equitably distributed among three elementary schools in three geographic areas in the county. Of the 102 boys, 47 (21.6%) were in fifth grade and 55 (25.3%) were in sixth grade. Fifty-eight (26.8%) of 115 girls were in the fifth grade and 57 (26.3%) were in the sixth grade. The sample was approximately evenly divided by sex and grade in school.

Developmental intelligence quotient and age. The range of intelligence scores for North Carolina subjects was from 70-120 or above (after elimination of subjects with IQ scores below 60). Over half of the sample obtained scores in the 90-109 range and the median score appeared in the 90-99 range. The N. C. mean was almost 10 points higher than the mean for the region. Only one-third (34.7%) of the total regional sample obtained scores in the 90-109 range, and the median regional score fell in the 80-89 category.

In addition to having IQ scores slightly higher than the total regional sample, the North Carolina student subjects were slightly younger. Also when

Table 1. Acronyms and Brief Description of the Twenty-three Study Variables

Block	Variable No.	Acronym	Description
I	1	OCC	Mean of NORC score for child's aspired and expected occupation
	2	ED	Mean of coded levels of child's aspired and expected educational plans
II	3	AC	Child's composite score on Elder Achievement Motivation scale and school-liking portion of Weiner Achievement Motivation scale
III	4	MOC	Mean of mother's NORC scored aspired and expected child's occupation
	5	MED	Mean of mother's aspired and expected levels of education for child
IV	6	SEL	Child's score on Lipsitt self-concept scale
V	7	MOTK	Child's mentions of talking with mother about job or school plans
	8	FATK	Child's mentions of talking with father about job or school plans
VI	9	LV	Child's perception of loving behavior by mother from BPB*
	10	DM	Child's perception of demanding behavior by mother from BPB*
	11	PU	Child's perception of punishing behavior by mother from BPB*
	12	COM	Child's report of mother's communication (Elder's modified independence training items)
VII	13	OUT	Mother's preference for child with outgoing traits, from Kohn's items
	14	CHA	Mother's preference for child with character traits, from Kohn's items
VIII	15	FST	Indicator of child being first born
	16	IQ	Otis-Lennon Mental Ability Test (1967) score
IX	17	FBK	Composite of breadwinner's NORC score and mother's schooling and social participation
	18	ANO	Indicator of Mother's anomia based on Srole items
	19	ACV	Mother's achievement value score
X	20	MOG	Mother's age
	21	WEL	Welfare status of household
	22	NOH	Indicator of no husband in household
	23	HOZ	Number of persons in household

* Bronfenbrenner Parent Behavior questionnaire

the children were first tested in the spring of 1969, they ranged in age from 10 to 13 years, with almost half (44.24%) being 11 years old. Perhaps fewer rural white youngsters had experienced difficulty in academic achievement than youngsters in other subcultures; therefore, they had maintained a grade level appropriate to their chronological age.

Family structure—Constellation composition, household size and mothers' age. The largest percentage (41.0%) of subjects were middle children. The average size for a family was 5.5 members—5.2 for girls and 5.6 for boys. The average size family for the regional total sample was 6.8 persons.

In studying the composition of the families it was found that the largest percentage, 87.1, of subjects were from intact families—mother, father, and children only—living together in the same household. Slightly over 7 percent represented families with no fathers present. This description was considerably different from other groups in the regional study. Rural and urban Negro samples had twice as many "father-absent" families among their subjects. The urban Negro regional sample had 23 percent of its subjects in this category and the rural sample had 13 percent. When considering the total regional rural white sample, North Carolina had 1.4 percent more families composed of only mothers and children than did the whole regional rural white subculture.

The mean age for the North Carolina mothers was 38 years. This was the same as that for other subcultural samples throughout the region.

Mothers' and fathers' mobility. More mothers than fathers had never lived outside the county (89 mothers compared to 75 fathers). These differences in fathers' mobility could be attributed to some factors reported by the mothers during the interview: service in the armed forces and seeking employment outside the state (frequently while the family remained in the native community). Mothers who had lived outside the county reported various places of residence ranging from in-state or an adjoining county to another southern state (not adjoining North Carolina) or "some place else". More fathers than mothers had lived outside the state. Of those who had lived outside the county, only 41 mothers and 57 fathers had ever lived in a city of over 25,000 population.

Education of Parents. Fifty of the mothers had completed only eight grades and fifty had completed twelve grades while only four mothers went beyond high school. About one-fourth (51 or 24.0%) of the fathers had completed eight grades, 26 (11.9%) had completed twelve grades and 7 (3.2%) had received training beyond high school. The range of education for the fathers was much broader, with the number of fathers completing various grades more evenly spread throughout grades 2 through 12+.

When the educational attainment of the mothers and fathers in the N. C. sample was compared with that of other regional subcultures, it was found that fewer in the N. C. sample had completed *only* grades 1-5. Two other states with Appalachian rural white samples reported 31 subjects having completed only grades 1-3; whereas N. C. had only 3.

The mean for mothers educational level for the N. C. sample was 9.2 (9th grade). This was almost one grade level higher than the mean for the total

rural white subculture which was 8.6. It is of interest to note, however, that the mean for the urban black mothers in the regional sample was one grade level higher than the N. C. rural Appalachian sample and higher than the mean for the other two samples combined.

Employment Factors

The status of employment is of concern to those interested in disadvantaged families. An examination of employment factors concerning parents seemed highly relevant in this study of children's occupational aspirations.

Employment status of mothers. Over two-thirds of the mothers in the study were fulltime housewives (67.7%). Forty-seven or 21.6% of the mothers worked fulltime (35 or more hours per week). Eighteen (8.3%) worked 20-35 hours per week. Five of the mothers (2.3%) who "usually" worked were unemployed at the time of the survey.

Employment status of fathers. The status of fathers' occupations is presented in Table 2. Fathers' occupations were classified according to the Socioeconomic Index for Occupations in the Detailed Classification of the Bureau of the Census and the corresponding Duncan categories (National

Table 2. Job Status of Fathers in North Carolina Sample

Occupational Status U. S. Census Classification	Number	Percentage
1—Professional, Technical	3	1.4
2—Farmer (owner), Farm manager	41	18.9
3—Managerial, Proprietor, (except farm)	7	3.2
4—Clerical and sales	2	.9
5—Craftsman, Foreman	48	22.1
6—Operative	59	27.2
7—Service, Private household	3	1.4
8—Farm laborer	5	2.3
9—Laborer	23	10.6
Total Employed	191	88.0
No Job	26	12.0
Total Sample	217	100.0

Opinion Research Center Studies (Reiss, 1963). The largest percentage fit the classifications of operatives and laborers. The sample had some representation in each of the 9 categories; whereas, many samples in the regional study had no representation in the professional and technical categories. About two-thirds of the working fathers were laborers, operators, or craftsmen; and 19 percent were farmers (very few were considered large farm managers). Like the regional total sample, a very low percentage (1.4%) were in the professional-technical category.

Sources of income. One interview question asked for the primary source(s) of family income. Of the total sample, 158 (72.8%) reported salary or wages as the primary source. Only three families were receiving unemployment compensation at the time of the survey. Social Security benefits were reported by 14 families (6.5%) as their "most important" source of income. Farm profits were reported as a primary income source for 29 (13.3%) families. Surprisingly, this represented a small proportion for an area which seemed primarily agricultural.

Exposure of Family Members to Larger Society

Low-income families, like families of other income strata, are influenced by a variety of social factors and institutions. The church, school, political factions and the various media are a few of the entities which affect people of all status levels. Through interview questions, an attempt was made to obtain information concerning chuch attendance, voting practices and frequency of viewing television.

Church affiliation of mothers. About three-fourths (75.5%) of the mothers belonged to an organized church. An additional 19 (8.8%) attended but were not members. A little over 60 percent of the total sample attended with reasonable regularity.

Although over half of the North Carolina sample attended church, patterns of the regional rural white subculture differed from other subcultures in the regional sample. Rural whites reported the highest incidence of alienation from organized religion, with one out of every four stating they neither "belonged to nor attended church." Rural Negroes reported the highest incidence of affiliation, with 96 percent reporting membership and 80 percent reporting attendance. Ninety percent of urban Negroes reported membership, with 58 percent reporting regular attendance. The pattern of attending church without belonging, reported by 9 percent of the rural whites, was almost non-existent among rural and urban blacks.

Voting status of mothers. Almost 80 percent of the total sample were registered voters and 85.5 percent (147) of these had voted sometime within the two years prior to the survey. The proportion of those registered who had voted within the last two years were approximately the same for all three subcultures in the region. About the same proportion of women who had voted also knew something about the state government, as evidenced by the fact that 149 mothers could name the governor of the state (59 were unable to do so and 9 did not respond).

Exposure to mass media. According to mothers' estimates, median time each day spent in viewing television was 1-2 hours for mothers (33%) and also for children (51%). This was a variation from the subcultural median for rural Negro children in the region whose mothers reported a median of 3-5 hours. Twenty-eight percent of the mothers reported 3-5 hours of television for themselves while their children watched television about 1 hour per day (25%).

As another means of ascertaining the mothers' exposure to the larger society, questions were asked about the frequency of listening to news reports and reading newspapers. Almost three-fourths of the mothers (72%) neither subscribed to nor read any kind of newspaper. About one-fifth of the mothers (21.7%) read a daily paper and named it in their answers. A small percentage (4.1%) subscribed to and read a non-daily paper.

Even though the mothers did not read newspapers, there emerged some pattern of contact with the media through listening to news broadcasts. Ninety-four percent listened everyday and 9 (4.1%) listened two or three times per week. Only 4 mothers reported they "seldom or never" listened to newscasts.

Membership in clubs or organizations. Very few mothers were members of clubs or organizations, such as the PTA, a social club, and the extension homemakers. Of the 217 mothers interviewed, only 13 (5.9%) answered "yes," they belonged to one or more such organizations.

Educational and Occupational Aspirations and Expectations

Educational and occupational goals were the central concern of this study. Although a number of factors were considered which may have influenced the children's educational and occupational goals, none was considered more important than the child's own expression of goals and his mother's expectations for him.

To ascertain educational aspirations and expectations, each child was asked how far he would like to go in school and was given seven alternatives among which to place his choice. Mothers were asked the same questions. In like manner, occupational aspirations and expectations were determined. Children were asked the question, "If you could choose any job you *wanted*, what kind of job would you *really like* to have when you grow up?" In order to find out what jobs they expected, they were asked, "what kind of job do you think you *really will* have when you grow up?" Mothers were asked, "If you could choose any job, what kind of job would you *most like* (name of survey child) to have when he (she) grows up?" and "What kind of job do you think (name) *really will* have when he (she) grows up?" The jobs they named were scored using the NORC scale of prestige scores (Reiss, 1963) and the U. S. Census Classification.

Educational aspirations of children in the North Carolina Sample. When asked how far they would like to go in school, the children were given seven alternatives from which to choose. These ranged from "finish 8th grade" to "finish college". Table 3 reveals a very high level of aspiration on the part

Table 3. Educational Aspirations of North Carolina Children—Comparison with Regional Sample

Educational Aspirations	North Carolina Rural White		All Rural White		Urban Negro		Rural Negro	
	Number	Percentage	N	%	N	%	N	%
Finish 8th grade	2	.9	14	2.4	4	1.1	5	1.0
1-2 years high school	8	3.6	25	4.3	2	.6	7	1.4
Trade School instead of high school	1	.5	2	.3	2	.6	1	.2
Finish high school	60	27.7	132	22.8	38	10.8	104	21.7
Finish high school and go to trade school	15	6.9	37	6.4	21	5.9	54	11.3
1-2 years college	30	13.8	51	8.8	41	11.6	26	5.4
Finish college	100	46.1	318	55.0	245	69.4	283	59.0
No response	1	.5						
Total	217	100.0	579	100.0	353	100.0	480	100.0

of all subjects and shows how the North Carolina sample compares with the three other subcultures. A general finding in the regional sample was that the median aspiration level for each of the subcultures was in the "finish college" category. Percentages of subjects aspiring to levels less than completion of high school were negligible. It is interesting to note that the urban Negro children expressed highest aspirations, in that 69.4 percent aspired to finish college, with 59 percent of the rural Negroes aspiring to that level. In the North Carolina rural white sample, the percentage of students aspiring to finish college was only 46.1 percent, compared to the 55 percent with such aspirations in the total white rural sample.

Educational aspirations of mothers for their children. The mother of each child was asked the same questions concerning expectations for her child's achievement. These responses were considered indirectly indicative of her attitude concerning the importance of education. Her responses were also considered to be possibly more reality-oriented than those of her fifth or sixth grade child.

Table 4. Educational Aspirations of the North Carolina Mothers for their Children—Comparison with Regional Sample

Educational Aspirations	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Finish 8th grade	0	0.0	3	0.5	0	0.0		
1-2 years high school	0	0.0	2	0.3	2	0.6	2	.4
Trade school instead of high school	0	0.0	0	0.0	0	0.0	2	.4
Finish high school	56	25.8	107	18.5	138	39.1	108	22.5
Finish high school and go to trade school	29	13.3	70	12.1	18	5.1	23	4.8
1-2 years college	13	6.0	27	4.7	16	4.5	18	3.8
Finish college	118	54.4	370	63.9	179	50.7	327	68.1
No response	1	.5						
Total	217	100.0	579	100.0	353	100.0	480	100.0

The mothers held almost as high aspirations for their children's educational attainment as the children held for themselves. The median response for the N. C. sample was in the "finish college" category as were the median responses in all other subcultural groups. Not one of the North Carolina mothers aspired to less than completion of high school for her child. Fifty-four percent had aspirations that their children finish college, and 25 percent aspired to the completion of high school. An additional 19.3 percent selected one of the two categories between high school and completion of college. Table 4 presents the North Carolina and the regional data.

Childrens' educational expectations. Recognizing that anyone's aspirations may be in discrepance with actual expectations, each child was asked how far he or she actually expected to go in school. Table 5 shows that expectations about schooling were slightly lower than aspirations (Table 3). The percentage expecting to graduate from college diminished from almost one half (46.1%) to one-fourth (25.4%). More students indicated an expectation of "1-2 years college" than when they responded to the aspiration item. Responses in two categories, "finish 8th grade" and "trade school instead of high school", were the same for "aspiration and expectation". In like manner,

Table 5. Educational Expectations of North Carolina Children—Comparison with Regional Sample

Educational Expectations	North Caroline		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Finish 8th grade	2	.9	14	2.4	4	1.1	7	1.5
1-2 years high school	12	5.5	26	4.5	9	2.6	13	2.7
Trade school instead of high school	1	.5	1	.2	2	.6	5	1.0
Finish high school	96	44.2	238	41.1	75	21.2	175	36.5
Finish high school and go to trade school	11	5.1	29	5.0	22	6.2	52	10.8
1-2 years college	39	17.9	70	12.1	57	16.2	59	12.3
Finish college	55	25.4	201	34.7	184	52.1	169	35.2
No response	1	.5						
Total	217	100.0	579	100.0	353	100.0	480	100.0

a regional comparison shows that in the rural white and rural Negro samples over 60 percent of the mothers aspired for and 35 percent expected their children to finish college. In contrast, the urban Negro mothers' expectations for their children to finish college were higher.

Educational expectations of mothers for their children. When the N. C. sample of mothers were asked how far in school they actually expected their children to go, the median response was "finish high school". This was comparable to the median response of the regional sample, except for the urban Negro mothers whose median response was "finish 1-2 years of college". Although none of the mothers in the N. C. sample aspired to anything below high school graduation for their children, two mothers indicated they did not expect their children to finish high school. Only 57 (26.2%) expected their children to finish college, whereas, 118 (54.4%) had aspired to the "finish college" level. About the same number expected their children to finish high school or go to trade school as had aspired to that level. (See Table 6.)

Table 6. Educational Expectations of North Carolina Mothers for their Children—Comparison with Regional Sample

Educational Expectations	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Finish 8th grade	1	0.5	13	2.2	2	.6	3	.6
1-2 years high school	1	0.5	11	1.9	7	2.0	11	2.3
Trade school instead of high school	0	0.0	0	0.0	1	.3	1	.2
Finish high school	121	55.7	309	53.4	122	34.6	281	58.5
Finish high school and go to trade school	28	12.9	71	12.3	44	12.5	21	4.4
1-2 years college	8	3.7	45	7.8	56	15.7	37	7.7
Finish college	57	26.2	130	22.4	121	34.3	126	26.3
No response	1	0.5						
Total	217	100.0	579	100.0	353	100.0	480	100.0

Occupational aspirations of children. Most of the children responded to the question about occupations by naming a specific job. These jobs were classified according to the Duncan Socioeconomic Index for Occupations. Data are presented in Table 7.

Almost 60 percent of the children aspired to a job in the professional category—at the top of nine broad categories ranging from "1" (professional) to "9" (laborer). Such aspirations were consistent throughout the regional sample. Only five (2.3%) children responded that they did not know what job they would like to have. About 20 percent of the children aspired to "clerical and sales" and "operative" level occupations. Another 14 percent responded in the "craftsman, foreman" and "service, private household" categories. Only two students in the N. C. sample aspired to the "farm laborer" and "laborer" categories, whereas 14 and 34 students in the other two rural white sample areas and the rural Negro areas respectively indicated these categories.

Table 7. Occupational Aspirations of Children in the North Carolina Sample—Comparison with Regional Sample

Census Classification	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Professional, Technical	129	59.5	327	56.5	188	53.2	287	59.8
Farmer, Farm manager	5	2.3	17	2.9			2	.4
Managerial, Proprietor	4	1.8	5	.9	5	1.4	8	1.7
Clerical, Sales	21	9.6	47	8.1	22	6.2	18	3.7
Craftsman, Foreman	15	6.9	46	7.9	30	8.5	38	7.9
Operative	20	9.2	48	8.3	30	8.5	23	4.8
Service, Private household	16	7.4	53	9.1	61	17.3	48	10.0
Farm laborer	1	.5	2	.3	8	2.3	3	.6
Laborer	1	.5	14	2.4	6	1.7	34	7.1
No response or Don't know	5	2.3	20	3.4	3	.8	19	3.9
Total	217	100.0	579	100.0	353	100.0	480	100.0

Occupational aspirations of mothers for their children. When the mothers were asked, "What would you like your child to be when he/she grows up?" they often responded that they had never thought about it. Even though a response of some kind was urged, almost one-third of the mothers maintained a position in the "no response or don't know" category. The failure to respond was a more consistent reaction among the white subcultural groups, with much smaller proportions of Negro mothers failing to name a vocation to which they aspired for their children (Table 8). The children, however, were much less hesitant to make a specific response. Less than 4 percent responded "no response or don't know" (Table 7).

About 45 percent of the mothers aspired to a "professional, technical" level for their children. However, this was about 15 percent less than the children's (59.5%) responses in this category. Also, these are somewhat lower than the urban Negro (62%) and rural Negro (68%) responses for this category.

Table 8. Occupational Aspirations of North Carolina Mothers for their Children—Comparison with Regional Sample

Census Classification	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Professional, Technical	97	44.7	318	54.9	218	61.8	323	67.3
Farmer, Farm manager	3	1.3	8	1.4	1	.3	5	1.0
Managerial, Proprietor	1	.5	5	.9	6	1.7	3	.6
Clerical, Sales	23	10.6	71	12.3	39	11.0	48	10.0
Craftsman, Foreman	6	2.8	18	3.1	10	2.8	32	6.7
Operative	4	1.8	13	2.2	12	3.4	2	.4
Service, Private household	6	2.8	18	3.1	34	9.6	10	2.1
Farm laborer	0	0.0	0	0.0	11	3.1	1	.2
Laborer	9	4.2	14	2.4			9	1.9
No response or Don't know	68	31.3	114	19.7	22	6.2	47	9.8
Total	217	100.0	579	100.0	353	100.0	480	100.0

Throughout all the groups, 10 to 12 percent aspired to the "clerical, sales" category. More mothers than children responded in the "laborer" category; however, it is interesting to note that none of the mothers in the N. C. sample and the other rural white samples responded in the "farm laborer" category.

Occupational expectations of children. When the children were asked what they actually expected their adult occupations would be, the percentage in the professional category dropped from 60 percent "aspired" to 35 percent "expected." The "no response/don't know" category increased from 2.3 percent to 14.3 percent. However, even after these changes, the "professional" category remained the largest single category. Almost 20 percent responded "operative", the next largest category expected, whereas only 10 percent had aspired to this level. The rural and urban Negro groups changed very little from the percentage aspiring to the percentage expecting an "operative" level job. The children's vocational expectations are shown in Table 9.

Table 9. Occupational Expectations of North Carolina Children —Comparison with Regional Sample

Census Classification	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Professional, Technical	75	34.5	234	40.4	176	49.9	223	46.5
Farmer, Farm manager	11	5.1	30	5.2			5	1.0
Managerial, Proprietor	1	.5	4	.7	4	1.1	10	2.1
Clerical, Sales	16	7.4	39	6.7	28	7.9	19	3.9
Craftsman, Foreman	21	9.7	53	9.1	35	9.9	36	7.5
Operative	47	21.6	75	12.9	24	6.8	21	4.4
Service, Private household	11	5.1	47	8.1	50	14.2	59	12.3
Farm laborer	2	.9	3	.5	9	2.5	2	.4
Laborer	2	.9	20	3.4	12	3.4	57	11.9
No response or Don't know	31	14.3	74	12.8	15	4.2	48	10.0
Total	217	100.0	579	100.0	353	100.0	480	100.0

Occupational expectations of mothers for their children. Rephrasing the question to elicit the mothers' actual expectations regarding their children's adult occupations resulted in a considerable decrease in the professional category for the two rural subcultures in the regional sample. The urban Negro mothers, however, showed practically no change in this category between aspiration and expectation. The North Carolina mothers were not unlike others in the regional rural white sample where the professional category expectations decreased by almost one-fourth. The "farmer, farm manager" category increased for the North Carolina sample from 1.3 percent to 8.3 percent. This is perhaps an indication that the mothers would like for their children to have jobs away from home, but that they really expect the children will "stay around the place" and make a living at farming (Table 10.).

When compared to the "aspiration" response, the percentage of expectations in the "laborer" category was twice as large (from 4.2% to 9.7%). The

Table 10. Occupational Expectations of North Carolina Mothers for their Children—Comparison with Regional Sample

Census Classification	North Carolina		All Rural White		Urban Negro		Rural Negro	
	N	%	N	%	N	%	N	%
Professional, Technical	55	25.4	141	24.3	215	60.9	188	39.2
Farmer, Farm manager	18	8.3	42	7.2	1	.3	10	2.1
Managerial, Proprietor	3	1.4	5	.9	5	1.4	1	.2
Clerical, Sales	13	6.0	51	8.8	36	10.2	33	6.9
Craftsman, Foreman	15	6.9	48	8.3	12	3.4	42	8.7
Operative	7	3.2	27	4.7	12	3.4	9	1.9
Service, Private household	7	3.2	17	2.9	25	7.1	27	5.6
Farmer laborer	0	0.0	1	.2	1	.3	2	.4
Laborer	21	9.7	38	6.6	3	.8	39	8.1
No response or Don't know	78	35.9	209	36.1	43	12.2	129	26.9
Total	217	100.0	579	100.0	353	100.0	480	100.0

"clerical, sales" category decreased by 4 percent. Similar trends were evident for the mothers throughout the regional data.

Regional boy, girl and mother comparison for occupational aspirations and expectations. In the total regional sample, approximately one-half of all the boys and almost three-fourths of the girls had "professional", "technical", or "managerial" level aspirations. Similarily, about 60 percent of the boys' mothers and 66 percent of the girls' mothers had "professional, technical", or "managerial" level aspirations for their children. Over one-third of the boys had "craft", "service", and "operative" level aspirations and expectations. About one-fifth of the girls had "clerical-sales" and "service" level aspirations and expectations. This tendency was less characteristic of the mothers. The comparisons by sex in percentages are presented in Table 11.

In addition to classifying jobs according to the U.S. Census categories, the occupations named by youngsters and their mothers were scored using the corresponding NORC (National Opinion Research Center) scale of prestige scores (Reiss, 1963). These were termed OCC scores and are presented in Figure 1. When comparing OCC scores for boys in the present

Table 11. Occupational Aspirations and Expectations of Children and Mothers for their Children by Sex in Percentage

Census Classification	Children				Mothers			
	Boys		Girls		Boys		Girls	
	Asp	Exp	Asp	Exp	Asp	Exp	Asp	Exp
Professional, Technical	48	37	73	57	57	33	66	43
Farmer, Farm manager	2	5	—	—	2	7	—	—
Managerial, Proprietor	2	2	—	—	2	1	—	—
Clerical, Sales	2	2	10	10	7	3	17	13
Craftsman, Foreman	15	15	1	1	8	14	—	—
Operative	10	11	2	5	2	5	1	1
Service, Private household	11	8	10	12	2	2	3	6
*Farm laborer	8	12	1	3	2	8	1	3
Laborer								
No response or Don't know	3	8	3	12	19	27	12	34
Total Percentage	100	100	100	100	100	100	100	100
Total Number	709		703		709		703	

* Farm laborer and laborer categories combined.

study with heads of household reported in the U.S. 1960 census returns, there is a striking similarity between the distribution of OCC scores and the actual U.S. distribution. For Wisconsin high school seniors in 1957, the average OCC score was 67, while fifth and sixth grade boys in the present study showed and average of 67 in 1968. Although these boys' anticipations may individually be far from correct, as a group they match the realities of the existing distribution of occupational prestige (Proctor, *Information Series I*, 1973). However, the distribution for the girls' OCC scores (Figure 1) is affected by the large number of "teacher" responses (having an OCC score of 78). This finding appears in Table 1.

Regional boy, girl and mother comparisons for educational aspirations and expectations. Data is presented in Table 12 for educational aspirations and

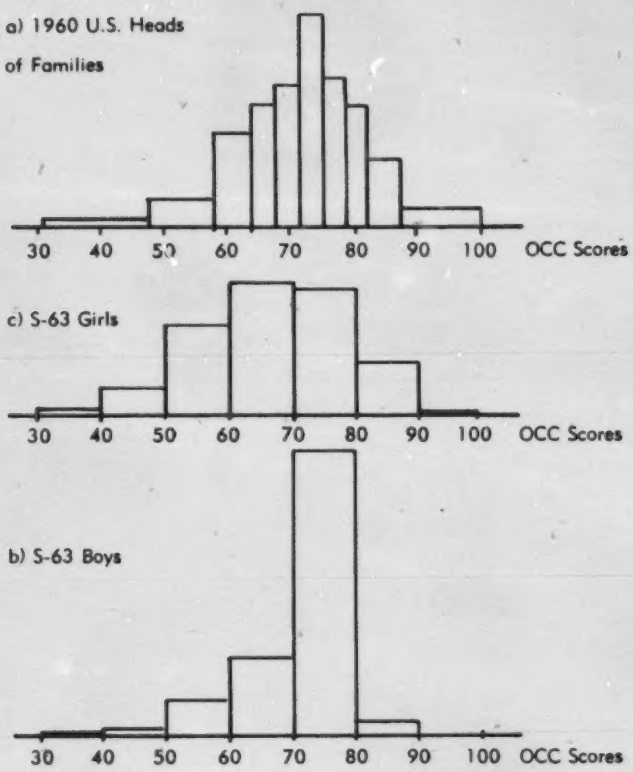

Fig. 1. Occupational Prestige Score Distributions for a) 1960 U.S. Family Heads, b) S-63 Boys and c) S-63 Girls.

expectations for the total regional sample by sex. Both students and mothers value educational achievement in that approximately 60 percent of all the students aspire for completion of college while 40 percent expect completion. Likewise, over 60 percent of the mothers aspire for college completion and 30 percent expect it.

Table 12. Educational Aspirations and Expectations of Children and Mothers for their Children by Sex in Percentage

Educational Level	Children				Mothers			
	Boys		Girls		Boys		Girls	
	Asp	Exp	Asp	Exp	Asp	Exp	Asp	Exp
8th grade	2	2	1	2	—	1	—	2
1 or 2 years high school	4	4	1	3	—	3	—	2
Trade school instead high school	—	1	—	—	—	—	—	—
Finish high school	19	34	20	35	26	51	25	50
High school, trade school	9	8	7	7	7	10	9	10
1 or 2 years college	10	13	7	13	4	6	5	7
Finish college	56	39	64	40	63	31	61	30
Total percentage	100	100	100	100	100	100	100	100
Total number	709		703		709		703	

In the comparison between boys and girls, almost three-fourths of the girls aspired to acquiring some college education while around two-thirds of the boys aspired to this attainment. Around 50 percent of both boys and girls expected to acquire some college education. Mothers of boys and mothers of girls differed by only 1 percent in their aspirations and expectations for their children to acquire at least some college education.

Persons children had talked with about jobs and length of schooling. Both boys and girls reported having talked most with their mothers about their job futures. Next in rank order were fathers for both boys and girls; however, more boys reported talking with their fathers than did girls. It is interesting to note that in considering all the people who were checked, the same rank order occurred for both sexes. After mother and father another relative was next most important, then older brother or sister, adult friend, teacher, and preacher.

When asked "How many people have you talked with about how far you should go in school?", all of the children responded in the same order as for "job talk"—mother, father, another relative, and an older brother or sister. For girls, the next person with whom they had talked about schooling was the teacher, whereas boys reported as next most important adult friend or neighbor. "Other kids" ranked next for both boys and girls. Only 14 of the

115 girls and 22 of the 102 boys reported having talked "a little" about dropping out of school. These findings are unlike those (of other studies that dealt with older children than this study) reported in the literature. Thus, it is indicated that low-income rural and urban Negro and Appalachian white youngsters rank parents and significant others in nearly the same order as those of other age and income groups.

Specific job choices. After reviewing the occupational categories (aspiration and expectation) of youngsters and their mothers, readers may be interested in the specific jobs named in response to the questions concerning "what one hopes to be" and "what one expects to be." The reported jobs "aspired" and "expected" by boys, by girls, and by their mothers for them were rank ordered for the 217 North Carolina subjects and presented in Tables 13 through 16.

The girls and their mothers in the North Carolina sample appeared to concentrate their choices among a relatively small number of jobs. A high proportion of girls in all samples (regional tables are not included) aspired to either a teacher, nurse, or secretary. The mothers' responses for their daughters were equally concentrated among these same three choices.

In North Carolina, the boys aspired to such "glamorous" jobs as pilot (included jet, glider, and astronaut), race car driver, athlete, doctor and policeman. However, the reality question, "what do you expect to be," resulted in some change in rank order, with "glamour" jobs being replaced in top positions by others such as farmer, factory worker, and truck driver.

The mothers held rather high aspirations for their sons, with first choice being teacher, doctor, engineer, and office worker. After considering what occupations their sons might actually pursue, the first choices became teacher, mechanic, farmer, and factory worker. Perhaps the most meaningful conclusions from the choices of boys and their mothers was the visibility of the occupations that were named. Respondents apparently named professional and occupational roles familiar to them. There appeared to be less need to raise aspirational level than to increase knowledge of the variety of occupations from which a young person could make a selection. Regional compilations indicated very similar trends in job choices.

Table 13. Jobs Aspired and Expected by North Carolina Rural White Boys

Rank Order	Jobs Aspired	N	%	Rank Order	Jobs Expected	N	%
1	airline pilot	10	10.0	1	farmer	12	11.7
2.5	truck driver	9	8.8	2	factory	10	10.0
2.5	race car driver	9	8.8	3	truck driver	9	8.8
3.5	policeman	7	6.8	4.25	athlete	7	6.8
3.5	athlete	7	6.8	4.25	mechanic	7	6.8
4.33	doctor	6	5.9	4.25	airline pilot	7	6.8
4.33	mechanic	6	5.9	4.25	carpenter	7	6.8
4.33	farmer	6	5.9	5	race car driver	6	5.9
5	carpenter	5	4.9	6.5	doctor	4	4.0
6.33	factory	3	2.9	6.5	armed services	4	4.0
6.33	scientist	3	2.9	7	policeman	3	2.9
6.33	lawyer	3	2.9	8.25	woodwork	2	2.0
7.25	barber	2	2.0	8.25	barber	2	2.0
7.25	teacher	2	2.0	8.25	scientist	2	2.0
7.25	entertainer	2	2.0	8.25	teacher	2	2.0
7.25	astronaut	2	2.0				
Number listing other jobs Don't know/other		18	17.6	Number listing other jobs Don't know/other		11	10.7
uncodables/NR		2	2.0	uncodables/NR		7	6.8
Total		102	100.1	Total		102	100.0

Table 14. Jobs Aspired and Expected by North Carolina Rural White Mothers for their Boys

Rank Order	Jobs Aspired	N	%	Rank Order	Jobs Expected	N	%
1	doctor	12	11.7	1	farmer	17	17.6
2	teacher	10	10.0	2	factory	10	9.8
3	office worker	8	7.8	3	mechanic	8	7.8
4	engineer	4	3.9	4	teacher	6	5.8
5.5	farmer	3	2.9	5	athlete	4	3.9
5.5	factory	3	2.9	6.16	car racer	2	2.0
6.33	machinist	2	2.0	6.16	office work	2	2.0
6.33	lawyer	2	2.0	6.16	engineer	2	2.0
6.33	carpenter	2	2.0	6.16	machinist	2	2.0
				6.16	carpenter	2	2.0
				6.16	veterinarian	2	2.0
Number listing other jobs		12	11.7	Number listing other jobs		14	13.7
Don't know/other uncodables/NR		44	43.1	Don't know/other uncodables/NR		30	29.4
Total		102	100.0	Total		102	100.0

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Table 15. Jobs Aspired and Expected by North Carolina Rural White Girls

Rank Order	Jobs Aspired	N	%	Rank Order	Jobs Expected	N	%
1	teacher	31	27.0	1	teacher	21	18.3
2	nurse	30	26.0	2	housewife	18	15.7
3	secretary	17	14.8	3	factory	17	14.8
4.5	beautician	5	4.4	4	nurse	15	13.0
4.5	seamstress	5	4.4	5	secretary	12	10.4
5	factory	4	3.5	6	seamstress	7	6.1
6.5	housewife	3	2.6	7	beautician	3	2.6
6.5	stewardess	3	2.6	8.5	work in hospital	2	1.7
7.33	clerk	2	1.7	8.5	stewardess	2	1.7
7.33	entertainer	2	1.7				
7.33	artist	2	1.7				
Number listing other jobs		11	9.6	Number listing other jobs		10	8.7
Don't know/other uncodables/NR		0	0.0	Don't know/other uncodables/NR		8	7.0
Total		115	100.0	Total		115	100.0

Table 16. Jobs Aspired and Expected by North Carolina Rural White Mothers for their Girls

Rank Order	Jobs Aspired	N	%	Rank Order	Jobs Expected	N	%
1	nurse	33	28.7	1	nurse	19	17.0
2	teacher	19	16.5	2.5	housewife	15	13.0
3	secretary	14	12.2	2.5	factor	15	13.0
4	factory	9	7.8	3	secretary	11	9.6
5	beautician	5	4.4	4	teacher	10	8.7
6	office work	3	2.6	5	beautician	6	5.2
Number listing other jobs		8	7.0	Number listing other jobs		6	5.2
Don't know/other uncodables/NR		24	20.8	Don't know/other uncodables/NR		33	28.7
Total		115	100.0	Total		115	100.0

BASELINE FINDINGS

Summary statements of the baseline findings are presented in this section. For detailed discussions and sub-cultural comparisons, the reader may refer to the regional publication of the Southern Regional Committee for Family Life, Information Series I. 1974, Papers 1-5, pages 87 to 148. The footnotes at the beginning of each summary section refer to the specific paper in the regional publication. The acronyms interspersed throughout the discussion below refer to specific study variables for which the components are defined in Table. 1.

Influences on the Child's Occupational and Educational Aspirations and Expectations[4]

Traditional literature suggests that youth, especially those from lower social strata, have upward mobility orientations which are related to maternal influence. This study was consistent in this respect. The variables with direct effects on boys' occupational aspirations (OCC) were mothers' occupational projection for sons (MOC), sons reporting mothers as most influential persons in their occupational and educational future (MOTK), the mothers' desires for their sons to be outgoing (OUT) and to have character (CHA), and demanding child-rearing orientations (high expectations in performance) of the mothers (DM).

For the girls, the main variable with direct effect on girls' occupational aspirations was the mothers' occupational projections for daughters (MOC) as had been the case with the boys. However, a significant source of influence on girls' OCC was the father as the influential person (FATK), rather than MOTK as for boys. The role of the child's report of communications with the mother (COM) suggests that the openness and supportiveness in communication may raise the daugher's occupational aspirations (OCC) despite the fact that MOTK depressed the OCC score. If a contradictory influence seems apparent it may be explained with the contention that the "quality of interaction influences the child's aspiration" (Butler, R. R. and Baird, A. W., Paper 1, Influences on the Child's Occupational and Educational Aspirations and Expectations, Information Series I; Furstenberg, 1971).

Almost all of the study variables played some role in influencing educational aspirations and expectations. However, the variables with direct effects were academic motivation (AC), mother's educational projections for her child (MED), father's influence (FATK) and the child's measured mental ability (IQ). In addition to being influenced by ability and motivational variables, educational aspirations were influenced by the indirect effects of the mother-child interaction and other family variables. These positive affectors or attention of mother to child—communication and demanding

[4] Butler, R. R. and Baird, A. W. Paper 1. Influences on the Child's Occupational and Educational Status Projections, page 87.

(DM) and loving (LV) aspects of child rearing—tended to raise the child's self-esteem (SEL), thereby raising the child's liking of academic activities (AC). This progression resulted in raised educational aspirations-expectations.

Mothers' Attitudes and Their Aspirations for Their Children[5]

The concern in this section is with the mothers' self-reported attitudes, social characteristics, and aspirations for their children as these influence the educational and occupational aspirations-expectations of the children.

Mother-child agreement on aspirations-expectations of mother for the child. Mean aspiration-expectation scores of mothers and children were similar overall for both occupational prestige level and level of education. Even so, mothers of boys had a tendency to envision higher occupational prestige for their sons than the sons envisioned for themselves, while the mothers of girls tended toward lower educational plans for their daughters than the girls held for themselves.

Education-occupation agreement for children and for mothers. The mothers' occupational aspirations-expectations (MOC) and their educational aspirations-expectations (MED) were greater than the corresponding correlations for the children (OCC and ED). However, in both cases the correlations seemed low. This finding is not surprising for this age child in this setting; but low correlations for the mothers suggest low awareness concerning different levels of occupations and their corresponding educational requirements and/or low prominence placed on the occupational and educational future of their children of this age.

The higher agreement for mother than for children between occupational and educational status projections was true only for boys and their mothers. This is probably due to the difference between the specific occupations mentioned by mothers and sons. Mothers favored occupations such as "doctor", "teacher", and "engineer", while boys named "race driver", "athlete", or "policeman" more often. On the other hand, mothers and daughters both specified "teacher", "nurse", and "secretary" most often.

Mothers' aspirations-expectations for their children's education and occupation. This section will present the causal implications for children's and mothers' status projections, while the previous section presented only agreement or difference between children's and mothers' responses. Of 18 study variables, two had an apparent influence on MED and MOC—these were children's IQ scores (IQ) and family background (FBK) (a composite of community behavior) (see Tables 17 and 18). It seemed that mothers were generally aware of how "bright" their children are and that this influenced the educational and occupational levels they projected. This IQ influence and mothers' aspirations-expectations for the children may possibly be reciprocal, since children may respond to the expectations of significant others by doing correspondingly better or worse than they otherwise might. High expectations on the part of the mother may encourage better academic performance

[5] Coleman, A. L. Paper 2. Mothers' Attitudes and their Aspirations for their Children, page 105.

Table 17. Dependence of the Mothers' Occupational Status Projections for their Children on Other Variables, by Subculture and Sex: Standardized Partial Regression Coefficients, in Hundredths.

Independent Variable	All		Urban Black		Rural Black		Rural White	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
SEL	3	1	— 8	6	— 1	3	— 4	— 8
FATK	1	— 1	— 7	5	0	12+	2	8
MOTK	2	6	6	10	— 5	—10	6	—13*
COM	1	1	— 1	8	3	— 7	1	1
PU	— 7+	— 1	— 6	3	— 4	— 7	— 5	0
DM	2	0	— 7	— 9	— 2	4	13+	6
LV	3	4	10	— 5	10	8	— 5	5
CHA	0	5	— 1	— 3	4	10	— 5	6
OUT	4	2	2	— 3	4	5	4	1
FST	5	8+	3	8	13*	5	— 4	7
IQ	14**	23**	26**	31**	9	16*	15*	20**
ACV	8	0	4	14	20*+	—11	— 2	0
ANO	— 2	2	— 3	8	3	0	— 6	4
FBK	22**	5	10	3	21**	7	25**	5
HOZ	1	2	— 5	0	9	— 2	— 8	8
NOH	— 3	3	7	1	— 7	3	—10	6
WEL	0	— 4	— 6	4	5	4	— 1	—19**
MOG	— 3	0	—10	3	3	— 2	— 5	3
R^2	.14**	.07**	.16+	.18*	.17*+	.10	.18**	.12*+

Significance Levels: ** = .005 or less, *+ = .01 to .006, * = .05 to .02, + = .10 to .06

Table 18. Dependence on the Mothers' Educational Status Projections for their Children on Other Variables, by Subculture and Sex: Standardized Partial Regression Coefficients in Hundredths.

Independent Variable	All		Urban Black		Rural Black		Rural White	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
SEL	6	3	2	— 3	6	7	3	0
FATK	1	5	—10	9	4	0	5	8
MOTK	— 2	4	4	3	— 4	7	— 4	2
COM	— 1	— 6	— 8	— 8	1	— 8	1	2
PU	3	— 1	9	— 4	— 2	— 2	2	0
DM	— 6	— 6	— 8	12	—10	— 6	— 1	—14*
LV	2	1	15	—14	0	5	— 2	5
CHA	12**	5	9	13+	9	3	12+	1
OUT	5	1	17*	— 1	1	4	— 1	—
FST	4	1	5	11	17*	2	— 8	— 6
IQ	18**	15**	20*+	17*	13+	16*	14*	8
ACV	14*+	5	2	9	24*+	4	9	0
ANO	— 7	2	— 6	— 4	— 1	4	—10+	6
FBK	23**	32**	6	32**	16*	34**	35**	33**
HOZ	—10*	— 6	—12	—11	— 4	2	—11	— 6
NOH	— 5	8*	—10	4	— 4	12+	— 4	6
WEL	— 3	— 7*	—12+	— 9	2	1	0	—15
MOG	0	— 3	— 1	— 3	4	2	— 5	— 9
R^2	.23**	.20**	.25**	.28**	.19**	.21**	.34**	.23**

Significance Levels: ** = .005 or less, *+ = .01 to .006, * = .05 to .02, + = .10 to .06

on the part of the child while low expectations may have the opposite effect.

The influence of family background on mothers' projected educational levels of their children are quite evident. However, in the area of the mothers' occupational projections, family background was less clear and there was a significant and substantial regression coefficient only for rural boys. This difference was not entirely apparent, but it may reflect the narrow range of occupations—mainly lower-white-collar-jobs in which most of girl's projections fall. Jobs for boys, as projected by themselves and their mothers, were spread through a broader range from blue collar to high professional ranks, thus making possible more discrimination on the basis of the family background. For example, both low and high status mothers may have expected secretarial jobs for their daughters, but apparently it was mostly the higher status mothers who thought of doctor and lawyer for their sons.

Among the variables not having a significant influence on the mothers' plans for the child, a few require comment. Contrary to what was expected, the high degree of mothers' anomia (ANO) did not have a depressing effect on their projections for the children. Similarly, being on welfare seemed to have had very little effect. There was no evidence of any direct influence of the children's self concept (SEL) on the mothers' educational and occupational projections for them. Perhaps the self-concept at this age level is too diffuse to have any influence on the mothers' projections.

Status characteristics of the mother and the household. The characteristics of the mothers exerted some influence on the level of the mothers' achievement values. The mother's age (MOG) significantly and negatively influenced her achievement values (ACV), but showed little influence on anomia (ANO). Being on welfare seemed to have a negative influence on achievement values.

Influence on Child's Academic Motivation, Self-Concept, and Reporting of Parents as Significant Others[6]

In previous sections in this summary it was stated that important variables affecting the child's aspirations and expectations were the child's academic motivation, self-concept and significant others. This section will consider the antecedent variables on the child's academic motivation (AC), self-concept (SEL), and the child's reporting that his parents' conversations (FATK) (MOTK) concerning educational and occupational future influenced aspirations and expectations.

Academic motivation. The primary determinant of academic motivation for both boys and girls was self-concept and to a lesser extent measured intelligence and high performance expectations of the mother (DM). For girls, the influence of mothers' loving child-rearing orientation (LV) is supportive of previous literature which indicates that achievement motivation has its impetus in early affective parental behavior.

[6] Butler, R. R. and Baird, A. W. Paper 3. Influences on Child's Academic Motivation, Self-concept, and Designation of Parents as Significant Others, page 119.

Self-concept. There was a positive influence of living (LV) and demanding (DM) on the child's self-esteem (SEL) along with a negative influence of punishing (PU). This finding confirms the idea that parental warmth and high expectations enhance positive feelings of self-worth while parental domination and punishment depress a child's self-regard. Fathers' influence (FATK) for boys was the only other variable related to self-concept. Not only was mothers' influence (MOTK) lacking, but also mothers' achievement orientations (ACV, ANO), family background (FBK), no husband (HOH), household size (HOZ), and welfare status (WEL) had little or no impact on self-concept.

Significant other influence. A loving maternal behavior orientation was the only persistent variable for boy's and girl's reporting father (FATK) or mother (MOTK) as influential in their occupational and educational future. This finding may be an indication of the positive regard accorded parents when the child perceives the maternal behavior as "affectionate", "supportive", and "concerned". The "designation" of significant other may be contingent upon the quality of the parent-child interaction.

There was generally a positive association between IQ and MOTK for boys, while it was negative for girls. This seems to indicate that mothers may play a supportive role for girls but an inspirational role for boys.

Being Firstborn, Child's Perception of Mother's Behavior, Mother's Values for her Child, and Their Relationships with Other Variables[7]

The following summary will center on two child variables—child's IQ and an indicator variable denoting first born or an only child (FST)—and six other variables measuring mother-child relationships. Four of the six variables measuring certain aspects of mother-child interaction were based on the child's report of his mother's behavior toward him. These behaviors were loving (LV), demanding (DM), punishing (PU), and communication (COM). Two variables were based on the mother's choice of characteristics desired in her child—outgoing (OUT) and character (CHA). The influence of these variables on self-concept (SEL) and academic motivation (AC) will be of particular interest.

Children's IQ scores and relationships with other variables. As was previously mentioned, there was a strong positive relationship between IQ and the mothers' loving behavior (LV), and a strong negative relationship between IQ and the mother's punishing behavior (PU). Also, high IQ scores tended to be associated with high scores on mother's communication with her child (COM) for both boys and girls, but especially for girls. A sex difference was found with the effects of IQ on reports of talking with mother about future schooling or job. Boys with higher IQ reported more talks with their mothers, whereas girls with higher IQ reported fewer talks.

IQ had a significant effect on the child's occupational aspirations and

[7] Southworth, L. E.; Albert, Z.; Gravatt, A.; and Proctor, C. H. Paper 4. Child's IQ, Being Firstborn, Child's Perception of Mother's Behavior, Mother's Values for Her Child, and their Relationship with Other Variables, page 125.

expectations (OCC) only for urban black groups. This finding may reflect the urban child's greater knowledge of a greater variety of jobs and the relevance of educational requirements.

The influence of the child's IQ on the mother's occupational (MOC) and educational (MED) plans for her child was strong and positive. The mothers seemed to have had a general idea of their children's academic capabilities as related to requirements for job success and educational pursuits. High expectations on the part of the mother may have encouraged better academic performance whereas low expectations may have had the opposite effect.

Relationship of firstborn variable with other variables. There was some evidence that firstborn children and their mothers have higher occupational status projections than other groups. There was also significant relationships between being firstborn (FST) and reports of talking to mother and father about job plans (MOTK and FATK). Firstborn boys tended to report more talks with parents about plans than other children, while firstborn girls and their mothers have higher career plans.

Relationships of maternal behavior variables with other variables. The most striking results were the strong positive relationships between the child's perception of his mother's behavior toward him and the child's self-regard. The positive influence of loving (LV) and demanding (DM) and the negative influence of punishing on self-concept (SEL) were evident for both boys and girls. The degree of communication between mother and child was also positively related to self-concept although it played a lesser role than the loving and demanding variables.

Academic motivation (AC) of the child is another variable which was dependent on some of the maternal behavior variables. For both boys and girls, the variables loving, demanding and communication were positively related to academic motivation. There were also some indirect effects of mothers' behavior on the children's academic motivation through the strong relationship with self-concept.

Children who rated their mothers high on the loving scale reported more talks with their mothers (MOTK) and with their fathers (FATK) about school and job plans. There were also significant relationships between the communication variable and MOTK.

The four maternal behavior variables showed little direct effect on the child's occupational (OCC) and educational (ED) plans or on the mother's occupational (MOC) and educational (MED) plans for the child. Their effects were indirect through their strong relationships with SEL, AC, MOTK, and FATK. Due to the lack of evidence of direct effect, the maternal behavior characteristics in reality may not be so prominent in fixing their children's status projections. Another explanation may be that OCC and ED are far from perfect indicators of a child's projections, and that perhaps SEL and AC themselves contain valuable components of striving for status. If this view is accepted one can recommend that "mothers apply liberal doses of loving and even demanding with frequent communicating at a reasoning and rational level of discourse, but go cautious with punishing, if they want their

children to have high self-esteem and to be academically motivated" (Paper 4, Information Series I).

It was not surprising to find that communication, at least for boys, decreased as household size increased. Absence of the husband in the household increased punishing behavior for mothers and for boys, while a larger number of persons in the household had a similar effect on mothers for girls. The mothers who favored outgoing children rated high on communication with their children.

Characteristics which mothers value in children. Another aspect of the mother-child relationship was studied through the mother's view of the ideal child, as expressed by her choice of traits considered most desirable. Parental values were labeled OUT for those traits indicating "mother values outgoing child" and CHA for "mother values child with character". (Traits in variable OUT: gets along well with other children; is affectionate; is happy; is considerate of others; is interested in why and how things happen. Traits in variable CHA: tries hard to succeed; is able to defend self; has self-control; is honest; is dependable.)

Mothers who favored outgoing children, as well as mothers who favored children with character (CHA), tended to have children with high occupational-educational expectations (OCC). The fact that these two variables, describing the mother's image of the ideal child as outgoing and having character, are positively related to the child's occupational status projections provides further evidence of the mother's influence on the child. Relationships between the mother's behavior variables and these two variables suggest that a mother's behavior to her child may be affected by her ideals for the child.

Status Characteristics of the Mother and the Household as They Affect Other Variables[8]

All households in the study had relatively low income; thus, there was less variation on socio-economic and demographic variables than would have been the case if a population cross-section had been studied. The five variables to be examined in this section are family background (FBK), number of persons in the household (HOZ), no husband in the household (NOH), welfare status (WEL) and mother's age (MOG).

Family background. Family background scores strongly influenced the mothers' educational projections for their children, particularly for all girls and rural white boys. Family background also influenced the mothers' occupational projections for sons but did not show a similar influence for daughters, probably because of the narrow range of occupations mothers reported for their daughters. These influences of family background seem to be consistent with the often-noted tendency toward inter-generational transmission of socio-economic status.

[8] Coleman, A. L. Paper 5. Status Characteristics of the Mother and the Household as They Affect Other Variable , page 141.

Family background also influenced the IQ scores of the children. It appears to have influenced the extent to which rural white mothers say they want "outgoing" children. Among rural white mothers, as family background scores rose, there was a tendency for the mother's image of the ideal child to shift from an emphasis on character to an emphasis on getting along with others (being outgoing). A rise in family background appeared to negatively influence the mothers' communication with sons, but had little such effect on daughters.

Household size. Household size did not show an independent influence on any variable, other than for small households to have first and only children (which was an expected tendency). There was a fairly strong negative influence of household size on urban black boys' occupational projections and on urban black girls' educational projections. Also, there was a negative influence of household size on the frequency with which boys perceive their mothers as communicating well with them (particularly among urban and rural blacks). There were only slight indications of this influence among girls, perhaps because even in large households girls have more opportunity for communication with their mothers through shared household tasks.

Mother's age. Mother's age was negatively related to family backgrounds. Perhaps this reflects the better education of younger persons (FBK-composite of family occupational level score, mother's schooling and social participation). Age (particularly among rural white mothers) had a negative influence on how much mothers valued achievement. It is not known whether this is a generational difference related to recent societal changes or whether mothers lose their achievement orientation as they grow older. The older the mother in the rural white groups the less likely her son perceived her as demanding or loving. Among urban blacks, the daughters' perception of their mothers as loving seemed to increase with the age of the mother.

Being on welfare. Being on welfare seemed to exert considerably more influence on other variables among rural white than among urban and rural blacks, and this influence was greater for girls than for boys. Among rural white girls and their mothers, welfare negatively influenced the mothers' occupational and educational projections and the extent to which girls reported talking to their mothers about aspirations and their plans, while it increased the mothers' anomia scores. Among rural blacks, being on welfare increased the extent to which the mother valued an outgoing child and tended to increase the children's educational projections. Among urban blacks, it increased the likelihood that boys and girls had talked with their mothers about plans. In this group, being on welfare depressed the girls' occupational projections and the IQ scores of boys.

No husband. The lack of a husband in the household has been traditionally heralded as influential on variables such as those in this study (Moynihan, 1965). However, in this study, of the several status characteristic variables, the lack of a husband in the household (NOH) had the least independent effect. Except for FATK, which would have a negative relationship to father or husband absence, there were no variables that were influenced across the board by lack of a husband. Urban black girls and

their mothers were more influenced than any other group, with the girls' occupational projections, their mothers' emphasis on the child's character, and the mother's level of anomia increased by the lack of a husband. The girls' self-concept, their perception of their degree of communication with their mothers, and their mothers' emphasis on an outgoing personality in their children decreased. The increase in girls' occupational aspirations-expectations as a consequence of being in fatherless households may indicate that girls who see their mothers having to get along alone may develop greater interests in the work world.

IMPLEMENTATION OF THE EXPERIMENTAL PHASE

The experimental phase was planned to test some procedures for increasing occupational and educational information among low-income youth of junior high school age and their parents. Several factors influenced the development of the experimental design. Youth in this age group were chosen because other programs had dealt with the high school age person. It also appeared that serious consideration for education and careers generally came too late to maximally influence youths' preparation. Therefore, youth from low-income families frequently experienced a negative impact from a lack of career planning which often resulted in their dropping out of high school.

An overall research question guided the experimental phase design—"To what extent may children's career thinking and planning be influenced by group sessions with their mothers?" It was agreed that the family, the peer group and the community are quite influential in helping youngsters make career decisions, even though the schools have some responsibility for providing career and occupational instruction and counseling. Additionally, it was considered that communication channels between mothers and children could be utilized to relate career information and supplement existing school programs. Also, previous research had suggested that group sessions might be an effective method for stimulating mother-child communication. Thus, a series of three group meetings provided the opportunity for mothers to gain information. In addition to these meetings, this phase included administering *before* and *after* questionnaires to mothers and their children.

Methods and Procedures

The first step in initiating the experimental phase was to re-establish the working agreements with school administrators, principals and teachers, since it had been two years since the baseline data had been collected in their schools. Next, it was necessary to check names and locations of subjects who had been contacted during the baseline study and to record changes in addresses, grade, and school enrollment. The measuring instruments were

shown to the school personnel, and the procedures for conducting the group meetings were reviewed. Since most of the school personnel remembered the baseline study and were familiar with the goals and purposes of the research, a thorough explanation of background information was not necessary. Most of the time spent with principals was for scheduling test administrations and making arrangements for group meetings.

Selection of Experimental and Control Groups

The smallest of the three elementary schools (53 subjects) participating in the baseline study was selected for pretesting the program plans, leaving two schools for the experimental phase. Each of the schools was located in a similar and somewhat isolated mountain area. The larger school (89 original subjects) was arbitrarily selected for the "experimental" school and the smaller (75 subjects) for the "control" school.

A random sample of 40 experimental subjects was drawn from the list of 89 subjects in the baseline study. The optimum number desired in the experimental group was 25. Since it was anticipated that all mothers drawn would not participate, a larger sample was drawn than was ultimately expected to participate. By like procedure the control subjects were ordered. Names, grade level, and sex of the first 40 experimental subjects drawn and the first 20 controls were checked by the principals of the two schools to determine any changes since the baseline study. Three of the cases drawn for the experimental group were no longer in school (all had moved out of the county), leaving 37 available.

Numbers were assigned to the 37 experimental and 20 control mothers in the same order as their children had been drawn. The first 29 experimental mothers were interviewed and commitments to attend the group meetings were obtained. Likewise, 15 mother-child control pairs were interviewed.

Administration of Before and After Interviews

Two survey questionnaires were designed to be administered to the experimental and control groups (mothers and children) as the experimental phase *before* and *after* tests. A "Survey of Student Plans for Work and School" was designed for the children along with one for the mothers: "Mother's Survey of Job Knowledge and Occupational and Educational Goals for Children" (copies may be obtained from the author). These *before* and *after* tests were administered to 37 seventh and eighth graders (experimental and control children) on a group basis. The *before*-tests were given in the Spring of 1971; the *after*-tests were administered nine weeks later.

The *before* and *after* tests for the mothers were administered by interviewers who visited the home at conveniently arranged times. Experimental group *before* testing was conducted during a three-week period just prior to the scheduled time for the group meetings; the *after* testing was conducted

during a three-week period, three weeks after the last group meeting. The interviewing/experimental meeting time schedule covered a period of three months.

To equalize any influence of the mother's interview upon the child's responses (or vice versa), the administration of the children's *before* tests occurred at a point approximately mid-way in the first three-week period allowed for surveying the mothers prior to the first group session.

Interviewers

Two interviewers completed administration of the mothers' interviews. One worked with the experimental sample and the other with the control group. Both had been interviewers in the baseline study, so they were familiar with the project goals. A manual of interviewing procedures was developed for the experimental phase and techniques for administering experimental interviews were reviewed during a training session.

Group Meetings for Mothers

The overall objective of the experimental phase was to test certain procedures for increasing occupational and educational information among low-income youth and their mothers. In order to accomplish this, programs were planned to be presented during three group meetings for the mothers.

Program Outlines

The complete program outlines developed to achieve the objectives of this experimental phase of the project are included in *Information Series II* (Southern Regional Technical Committee for Family Life, 1973).[9] A relatively brief summary of each is presented below.

Program I. "The World of Work" was designed to help the mothers understand the variety of jobs available and the education and training needed for each, and to help them understand that changes in their children's goals were to be expected. Career ladders developed by the technical committee and job posters showing training needed for the jobs were presented. The Widening Occupational Roles Kit (Science Research Associates) describing 490 different jobs was also used. The mothers took materials home and read about jobs and training. Group interaction was stimulated by the making of "stained glass" bottles. This activity was designed to help the mothers understand changes in children and how mothers can influence changes.

Program II. "Roads to Opportunity" urged mothers to talk about their children, tried to create an optimistic outlook and discussed ways mothers can help their children toward job opportunities to which they aspire.

[9] Copies are available in limited quantities from the School of Home Economics, Home Economics Center for Research, University of North Carolina at Greensboro, Greensboro, N. C. 27412.

Caplan, Ruble, and Segal (1963) state that pupils need to learn to understand themselves and the world at large before the question of vocational choice becomes realistic. Speakers were chosen from the community, one professional person and one with vocational training, to tell what motivated them in early life, their feelings about their environment, significant persons in their lives and what they did to achieve their goals. The speakers were also asked, "What things can young people in this community do to help themselves?" "How can mothers help their children?" A discussion period followed. Charts were used to help the mothers understand the need to plan early, how their children are unique, the need for parental support and for a child's self confidence and independence.

Program III. "A Job for My Child" helped the mothers to better appreciate the value of education and to see how this value could be transmitted to their children. A study by Sperry and Kivett (1964) showed that boys appear unaware of the educational requirements necessary for certain types of jobs, particularly those of a professional nature. Speakers from industry and the vocational school in the area talked about jobs and training available in the community and answered specific questions from the mothers. Posters and charts from Program I and Program II were again displayed. A flower-making activity was held to help the mothers understand that they and other people can be sources of influence in a child's life, his coming of age and attaining maturity. The pulling apart of the petals represented the world of work opening up to the children.

Selection and Preparation of Group Leaders

Specific criteria for choosing group leaders were not established by the regional committee. However, factors such as skill in promoting group discussion and ability to demonstrate warmth and to generate trust and acceptance were considered more important than sex, age, or racial characteristics.

The group leader was selected after consultation with the two county principals, the county school superintendent, and an interview with the prospective leader herself, during which time the nature of the project and the projected plans for the three sessions were reviewed. The leader had conducted the pilot study sessions during the Fall, 1970. After a successful pretesting experience she agreed to accept responsibility for leading the three group meetings. She was a high school home economics teacher, the mother of two boys, and had considerable experience in conducting adult classes in the community. The project purposes were reviewed in detail not only to help the leader understand the purposes of the meetings, but also to help in answering questions mothers might ask about the project. In addition, she was given a copy of "Program Procedures Manual for Group Leaders" (Complete manual is included in Information SeriesII), a copy of each program plan with the accompanying illustrative and demonstration materials, and names and addresses of all experimental subjects and persons scheduled to participate in the meetings.

The interviewer of the experimental group of mothers served as the assistant group leader. Her main duties were to greet the mothers, to find name tags, to assist with illustrative materials, and to record information about group interaction.

Selection of Participating Speakers

Suggestions from the principals, group leader and interviewer were used in contacting possible program participants. (Detailed outlines of the speakers' presentations and general guidelines for selection appear in Information Series II, 1973). In personal contacts, the purposes were discussed and the prospective participants were asked to help. Program III included two speakers —one from the field of education and one from business and industry who represented educational as well as occupational opportunities in the local area. After individual presentations, these two joined a student representative in a panel discussion. The student (young woman under 25 years of age with two small children) related how she was working toward her degree in elementary education by commuting to a community college and how she planned to continue degree completion at one of the state universities.

Program II included two speakers who presented autobiographical information relative to their own educational and occupational accomplishments. Representing the vocational area was a young, unmarried girl who had opened her own beauty shop. She had a sister who was interested in going to a technical school to study cosmotology and who, like the speaker, had the support of her parents. A medical doctor in a town near the sample area represented a professional area. He was a father of three children near the ages of the sample children. He had supported himself through college and medical school with the assistance of the G.I. Bill and had started his medical practice back in his home community.

Preparation for Group Meetings

Meeting place, time, and room arrangement. The meeting place was selected prior to the onset of the interviewing so that subjects could be given information about the group meetings at the time they responded to the *before* questionnaire. At the suggestion of school principals and the group leader, the sessions were held in the elementary school cafeteria in the experimental survey area on three successive Monday evenings. The women were familiar with the surroundings and the facilities seemed convenient for all concerned.

Publicity and recruitment. The interviewers served as "recruiting agents" in explaining the programs to the women and in encouraging them to mail their return cards indicating their intention to attend the sessions. On the Friday before each Monday evening meeting the mother received (via the child in the study) a flyer announcing the session. Before each session a letter was also sent to each mother from the university researcher.

Payment for participants. Each woman was paid ten dollars for participation in all three sessions. Since the women had not been told about the

pro-rating policy established by the regional committee, three women who attended two sessions only were paid the total amount since their absences were caused by illness.

Transportation. Although the interviewer offered help with transportation, all mothers furnished their own. Two or three groups pooled transportation and some came singly.

Provision for Child-Care Services. Even though a plan for a child care program had been written (plan included in Information Series II, 1973), the mothers did not request facilities for child care when given the opportunity by the interviewer. No children attended the sessions.

Evaluations of the Group Meetings

Observer's Records of Interaction

Use of a checksheet permitted an observer to record group interaction. The forms were prepared in advance with names and/or numbers inserted. As an individual spoke, the observer made a tally mark in the appropriate column by the name of the speaker. A sample form and some of the narrative entries are shown below. Sociograms were prepared for these records to show graphically the extent of interaction.

RECORD OF MEETING PARTICIPATION

Session 2

Group Member	A Answered question by leader or others	B Contributed information	C Shared personal experience	D Asked question	E Expressed interest or concern
Participant* (10)		5	1		
Participant (23)	2	1	1	2	
Participant (13)	1			1	
Participant (9)	1				

13D—"How much longer does it take to make a surgeon than a doctor?"
13A—"I talked with my child this week about ....."
9A—"I talked with my daughter, but I can't speak it." (Daughter wanted to be a psychiatrist.)

* Names were used during the sessions, but omitted for reporting purposes.

Mothers' Evaluations

At the time of the *after*-interview, mothers answered additional questions and completed an evaluation of the group meetings. The women had been told at the end of the third session that they would be asked to tell what they liked best and which parts of the meetings were most helpful. The interviewer reported that the mothers were very willing to fill out the evaluations, and that they talked a lot about the sessions. (The *after*-interview was by far the most time consuming.) A summary of the mothers' evaluations is included the chapter on Experimental Phase Data Analysis.

Description of Experimental Phase Sample

The information in this section is based on data collected from the experimental and control groups during the experimental phase. It is briefly presented in sections similar to the baseline information for ease in making comparisons.

Demographic Factors

Distribution by age, sex, grade level and developmental intelligence quotient. Nearly half of the youth in the experimental group were 13 years of age while almost the same percentage of the control youth were 14 years old (Table 19). Even though more of the control youth were older than the experimental youth, the North Carolina sample did not include any 15 and 16 year olds as did other groups in the regional study.

Table 19. North Carolina Experimental and Control Youth by Age Groups

	Experimental		Control	
Age	N	%	N	%
12	5	23.8	3	20.0
13	10	47.6	5	33.3
15	6	28.6	7	46.7
Total	21	100.0	15	100.0

In the experimental group 61.9 percent of the boys and girls were seventh graders and 38.1 percent were in the eighth grade. In contrast, nearly 67 percent of the control boys and girls were in the eighth grade with only 33 percent in the seventh grade (see Table 20).

Table 20. Experimental and Control Youth by Grade Level and Sex

	Experimental				Control			
	Boys		Girls		Boys		Girls	
	N	%	N	%	N	%	N	%
Grade 7	4	50.0	9	69.2	2	25.0	3	42.9
Grade 8	4	50.0	4	30.8	6	75.0	4	57.1
Total	8	100.0	13	100.0	8	100.0	7	100.0

The range of intelligence scores for the experimental and control subjects was from 70-120 or above. The mean for the experimental subjects fell in the 100-109 category of scores while the control group mean fell in the 90-99 category, the same as the overall score for baseline subjects. None of the 15 control boys and girls had scores of 120 or above; whereas, two of the 21 experimental youth had scores that high. Figure 2 is a histogram comparing the IQ scores.

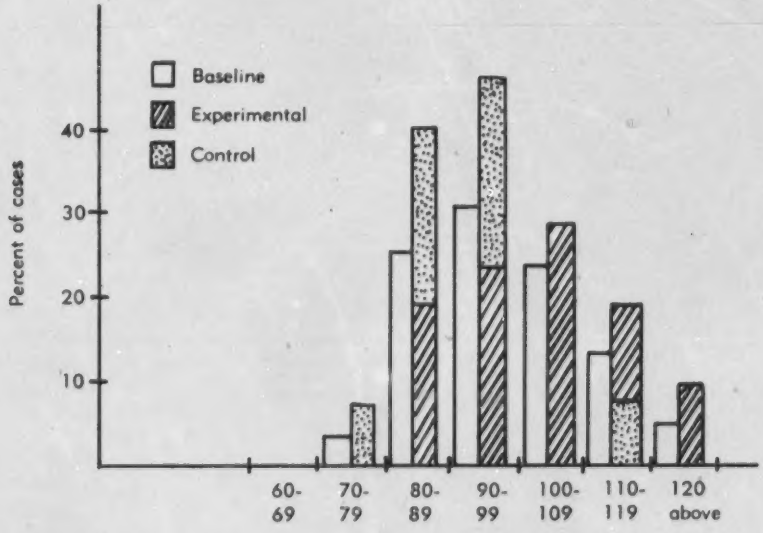

Fig. 2. Histogram Comparing Percentage of North Carolina Baseline, Experimental, and Control Youth by Range of IQ

Family structure and age of parents. The family constellation of the experimental group ranged from one subject (5 percent) being an only child to 55 percent being middle children. (This large percentage of middle children was also characteristic of the regional baseline sample). Twenty-five percent were the oldest of all the children in the family with 15 percent being the youngest. The average size family was 6.0 members, .8 less than the regional sample. Nearly all of the experimental children came from intact families —mother, father, and children only —living together in the same household. The mean age of the mothers participating in the experimental group meetings was 39 years and that of their husbands was 44 years.

Education of Parents. The fathers' range of education was from sixth grade (four fathers) to two years in a business college (one father). Three had completed schooling in each of three categories —seventh grade, eighth grade, ninth and/or tenth grades and eleventh grade. Two had finished high school and one of these had gone beyond to trade school. The mean educational level for fathers was 8.8 (almost ninth grade). The mean for the experimental mothers' educational level was 10.4 (tenth grade). This was one grade level higher than the mean for the North Carolina baseline sample. One of the mothers, a local high school teacher, was a college graduate while one mother had only completed fifth grade. Three and seven mothers respectively had completed the seventh and eighth grades, three had gone as far as one to three years of high school while five were high school graduates.

Employment Factors

Employment status of mothers. Fourteen (66.7%) of the experimental and 8 (53.3%) of the control mothers were full time housewives. The other seven

Table 21. Number and Percentage of Mothers of North Carolina Subjects by Hours Worked Per Week

Responses	Experimental Before/After*		Control Before/After	
	N	%	N	%
Housewife only	14	66.7	8	53.3
35 or more hrs/week	7	33.3	6	40.0
20-35 hrs/week	0		0	
Fewer than 20 hrs/week	0		0	
Usually work but now unemployed	0		1	6.7
Total	21	100.0	15	100.0

* Employment status did not change during the experimental period.

Table 22. Experimental and Control Fathers' and Mothers' Job Status Classification according to the U. S. Census

	Experimental				Control			
	Father		Mother		Father		Mother	
	N	%	N	%	N	%	N	%
Professional, Technical	0	0.0	1	4.8	0	4.8	0	0.0
Farmer, Farm manager	2	9.5	0	0.0	1	6.7	0	0.0
Managerial, Proprietor	0	0.0	0	0.0	1	6.7	0	0.0
Clerical, Sales	0	0.0	0	0.0	0	0.0	1	6.7
Craftsman, Foreman	3	14.3	0	0.0	3	20.0	2	13.3
Operatives	9	42.9	3	14.3	3	20.0	2	13.3
Service, Private household	1	4.8	0	0.0	0	0.0	0	0.0
Farm laborer	0	0.0	0	0.0	2	13.3	0	0.0
Laborer	2	9.5	3	14.3	1	6.7	2	13.3
Other: Deceased	2	9.5			0	0.0		
Disabled	2	9.5			3	20.0		
No husband					1	6.7	0	0.0
Housewife only			14	66.6			8	53.4
Total	21	100.0	21	100.0	15	100.0	15	100.0

experimental mothers were employed full time (35 or more hours per week). (See Tables 21 and 22). One was a professional and the other six were in either the "operative" or "laborer" categories. None of the control mothers' jobs were classified higher than the "clerical and sales" category.

Employment status of fathers. Fathers of experimental children held jobs primarily in the "operative" category (42.9 percent). Fourteen percent were craftsmen or foremen and almost ten percent were farmers or farm managers. Two fathers of the 21 were disabled and two were deceased. These data are presented in Table 22 along with that of the control group.

Exposure of Experimental Mothers to Larger Society—Club and Church Affiliation, Voting Status, and Media.

Almost 81 percent of the mothers attended church activities. However, this seemed to have been the extent of their social participation since nearly 86 percent did not belong to clubs. This is not a surprising finding. According to Ford (1965), people in the Appalachian culture are not willing to assume roles of leadership or even membership in social organizations even though they subscribe to religious beliefs and find security in church affiliation.

Almost 90 percent of the respondents were registered to vote, and all but two of those registered were active voters. Only six of the 21 sample mothers received any kind of newspaper (daily and weekly).

Educational and Occupational Aspirations and Expectations Questions

Questions which had been used in the baseline study to ascertain educational and occupational aspirations and expectations were used for the experimental *before* and *after* tests for the mothers and their children.

Educational aspirations and expectations of children (Table 23). About 43 percent of the experimental children reported aspirations toward finishing high school and another 43 percent toward finishing college on the *before*-tests. Overall, the control children had lower educational aspirations when compared to the experimental group. Only 13 percent aspired to finishing college. On the *after* test the percentage of experimental children aspiring to finish high school had dropped to 33 percent and those aspiring to finishing college had dropped to 38 percent. In the control group there were very few changes on the *after*-test.

In both groups expectations on the *before* and *after*-tests were slightly lower than aspirations. Ten to twenty percent more of the students expected to only finish high school.

Educational aspirations and expectations of mothers for their children (Table 24). When considering all the groups on the *before* and *after*-tests, mothers' aspirations and expectations for their children tended to be higher than those of their children. Again, as in the baseline study, the expectations of the mothers for the children had lowered—fewer expected college-level attainment. More of the responses tended to be in the "finish high school" category with less than 10 percent considering a trade school in addition to high school.

Occupational aspirations and expectations of children (Table 25). Over 50 percent of the experimental youth aspired to a professional technical job on the *before*-test; however, only 14 percent expected to obtain a job in that category. After the three group meetings, over 50 percent still aspired to the professional category, and almost 24 percent expected to reach that occupational level. Of the control children, 40 percent had professional aspirations, but none expected to obtain that kind of job. Among this group, the "laborer" category increased, as well as the number of "don't know" responses. A third

Table 23. Educational Aspirations and Expectations of Experimental and Control Youth Before and After the Three Group Meetings

Educational Aspirations	Aspirations								Expectations							
	Experimental				Control				Experimental				Control			
	Before		After		Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Finish 8th	0				2	13.3	0		0		0		0		0	
1-2 yrs. high school	0				0		1	6.7	0		0		3	20.0	1	6.7
Trade school instead of high school	0				0		2	13.3	0			0		0	1	6.7
Finish high school	9	42.9	7	33.3	8	53.4	8	53.4	11	52.4	8	38.1	11	73.3	11	73.3
Finish high school & go to trade school	1	4.7	0		2	13.3	0		0		1	4.7	0		0	
1-2 yrs. college	2	9.5	6	28.6	1	6.7	2	13.3	2	9.5	6	28.6	1	6.7		6.7
Finish college	9	42.9	8	38.1	2	13.3	2	13.3	8	38.1	6	28.6	0		1	6.7
Total	21	100.0	21	100.0	15	100.0	15	100.0	21	100.0	21	100.0	15	100.0	15	100.0

Table 24. Educational Aspirations and Expectations of Experimental and Control Mothers for their Children Before and After Three Group Meetings

Educational Aspirations	Aspirations								Expectations							
	Experimental				Control				Experimental				Control			
	Before		After		Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Finish 8th		0									0		0		0	
1-2 yrs. high school		0									1	4.8	1	6.7	1	6.7
Trade school instead of high school		0									0		0		0	
Finish high school		28.6		28.6		20.0		20.0		57.2	10	47.6	12	80.0	12	80.0
Finish high school & go to trade school		9.5		4.8		26.7		26.7		9.5	2	9.5	1	6.7	1	6.7
1-2 yrs. college		4.8		4.8		6.7		20.0			0		0		1	6.7
Finish college		57.1		61.9		46.6		33.3		33.3	8	38.1	1	6.7	0	
N	21		21		15		15		21		21		15		15	
Total		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0

Table 25. Occupational Aspirations and Expectations of Experimental and Control Youth Before and After Three Group Meetings

Responses	Aspirations								Expectations							
	Experimental				Control				Experimental				Control			
	Before		After		Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional, Technical		52.4		52.3		40.0		33.3		14.3		23.8		0		0
Farmer, farm manager		0		0		0		0		0		0		0		0
Managerial, Proprietor		0		0		0		0		0		0		0		0
Clerical, Sales		9.5		9.5		13.3		13.3		0		9.5		0		6.7
Craftsman, Foreman		19.0		28.6		13.3		6.7		4.8		19.0		0		20.0
Operative		9.5		4.8		13.3		6.7		0		4.8		13.3		6.7
Service, Private household		0		0		6.7		13.3		0		0		0		0
Farm Laborer		4.8		0		0		0		4.8		0		6.7		6.7
Laborer		4.8		0		6.7		6.7		23.8		4.8		33.3		20.0
Housewife		0		4.8		0		0		19.0		4.8		0		6.7
No response		0		0		0		0		0		0		0		0
Don't know		0		0		0		0		33.3		33.3		46.7		33.3
N	21		21		15		15		21		21		15		15	
Total		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0

of the experimental children also answered "don't know" when asked their expected occupations.

Occupational aspirations and expectations of mothers for their children (Table 26). Over 50 percent (52.4) of the experimental mothers aspired professional-technical jobs for their children on the before-test while 28 percent expected their children to obtain jobs in this category. On the after-test, 52.3 percent of the mothers reported professional-technical aspirations while 42.8 percent expected such jobs. Taken at face value a larger percentage of the mothers expected higher prestige jobs for their children after the experimental programs than they indicated on the before-tests. The children of these women did not report as high expectations on the after-test as their mothers. Forty-six percent of the control mothers aspired professional-technical jobs for their children while only 6.7 percent expected them to attain such jobs.

Reports of reasons aspired occupation will be obtained. After having responded to the questionnaire item eliciting aspired occupation, the mothers and children were asked the reason for the likelihood of obtaining the stated job. These responses were categorized according to the headings shown in Table 27. For example, if the child responded, "I make good grades in school" or "I'm good with motors," the response was placed in the "ability" category. "There are lots of openings in that job" would have been placed in the "job market" category. The motivational and economic contingency categories included items that were "if" contingents—"if he really wants to be one," "if we can afford it we will help her."

All of the experimental youth gave reasons; whereas, almost half of the mothers, even after the three group meetings, failed to indicate a reason. Over a fourth of the youth's reasons were related to the situation in the job market. None of the mothers in the experimental group and only one mother in the control group gave reasons fitting this category. Discrimination was not recognized in the North Carolina sample.

FINDINGS FOR THE EXPERIMENTAL PHASE

The findings of the experimental phase of the regional study[10] will be reported in three sections: (1) analysis of the changes in responses measuring educational and occupational information gained, and the children's academic motivation and levels of occupational educational aspirations and expectations as well as those of their mothers for them; (2) the intervention program for mothers; and (3) an evaluation of program effectiveness.

Data were collected from both students and mothers in a standardized interview questionnaire before and after application of the experimental program. The experimental treatment consisted of three, two-hour, structured group discussion meetings held in consecutive weeks.

[10] The regional findings for 112 experimental mother-child pairs and 98 control mother child pairs are presented here rather than individual state data for N. C. because it would not be statistically sound to present separate analyses by states with each having N's of less than 25.

Table 26. Occupational Aspirations and Expectations of Experimental and Control Mothers for their Children Before and After Three Group Meetings

	Aspirations								Expectations							
	Experimental				Control				Experimental				Control			
	Before		After		Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Professional, Technical		52.4		52.3		46.6		40.0		28.6		42.8		6.7		13.3
Farmer, farm manager																
Managerial, Proprietor																
Clerical, Sales		14.3				26.7		26.6		4.8		9.5		20.0		20.0
Craftsman, Foreman				4.8		6.7		6.7		4.8		9.5		13.3		6.7
Operative												4.8				
Service, Private household								6.7				4.8				
Farm Laborer												4.8				
Laborer		4.8		4.8		13.3		13.3		9.5		9.5		26.7		33.3
Housewife														13.3		20.0
No response		19.0		4.8						42.8		14.3				
Don't know		9.5		33.3		6.7		6.7		9.5				20.0		6.7
N	21		21		15		15		21		21		15		15	
Total		100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0

Table 27. Youth's and Mothers' Reports of Reasons Aspired Occupations will be Obtained

Response	Youth								Mothers							
	Experimental				Control				Experimental				Control			
	Before		After		Before		After		Before		After		Before		After	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
No response		0		0		26.7		13.3		47.5		47.6				20.0
Ability		9.5		14.2		20.0		13.3		4.8				13.3		20.0
Motivation		9.5		14.2		20.0		13.3		28.6		28.6		60.0		26.6
Motivating contingency		19.0		4.8		20.0		6.7		9.5		14.3				6.7
Financial or economic														6.7		6.7
Financial contingency		4.8				6.7		6.7		4.8				6.7		
Educational reason or contingency		28.6		23.8		0		20.0						6.7		
Encouragement of others		0		4.8		0		0		4.8						13.3
Family or general home environment		0		4.8		0		6.7				9.5				
Discrimination		0		0		0		0		0		0		0		0
Job market		28.6		28.6		13.3		6.7						6.7		6.7
Total	21	100.0	21	100.0	15	100.0	15	100.0	21	100.0	21	100.0	15	100.0	15	100.0

Changes in Responses Measuring Information, Aspirations and Attitudes

Analysis of differences between responses of mothers and their children on a test administered before and after the experimental program revealed five important findings attributable to the intervention program.

Information on Educational and Occupational Facts

The questionnaire items assessing information gain made up the variables entitled mother's information (MINFD) and child's information (CINFD). The difference between the before and after scores was computed for the experimental and control children and their mothers. The gross scores showing percentage correct are presented in Table 28 and difference by frequencies are shown in Table 29 and 30. When examined as pairs, experimental mothers and children showed a 4.6 percent increase in correct scores assessing job information on the after test as compared to their scores before the experimental program sessions. The control mother-child pairs registered an average increase of 1.6 percent.

Among the experimental groups in the three subcultures, rural Negro mothers exhibited the largest gain (12 percent) in correct scores on job information. Rural white mothers showed a slight increase while the urban mothers had a slight decline.

The experimental children exhibited a different pattern from their mothers on job information. Both urban and rural black groups had increases of 5 percent or more, while white children had a small increase of under 2 percent.

No significant differences in terms of changes in job information scores were observed between experimental and control groups of children. When urban boys and girls were considered by sex, significantly more girls in the experimental than in the control group attained higher job information scores on the after test.

Aspirations for Occupational and Educational Attainment

There was a reduction in the distance between the children's levels of occupational aspiration and their expectations. The means, 0.82 for the experimental group and 0.32 for the control group, may indicate that the experimental program decreased the gap between aspirations and expectations. If this gap decrease is taken as evidence of realism, then it can be said that the experiment promoted realistic thinking.

As to anticipated job prestige, the experiment had a differential effect between the sexes—an increase in prestige level for the boys and a decrease for the girls. Perhaps this means that the experiment tended to inspire the boys and "cool out" the girls.

Occupational aspirations were high, although not unusually high for this socio-economic group. A majority of the total group aspired to professional

Table 28. Mothers' and Children's Scores on Job Information Items Before and After Experiment for Experimental and Control Groups with Number and Percentages of Increases and Decreases of Scores by Subculture

Subculture	Mother-Child Pairs		Maximum Possible Score*		Experimental				Control				Percent of Increase or Decrease	
	N Exp.	N Cont.	E	C	Before Test	% +	After Test	% +	Before Test	% +	After Test	% +	E Group	C Group
Rural White Mothers	51	58	1326	1508	1090	82.2	1108	83.6	1226	81.3	1250	82.9	+ 1.4	+1.6
Children			1326	1508	981	74.0	1003	75.6	1101	73.0	1109	73.5	+ 1.6	+0.5
Rural Negro Mothers	47	28	1222	728	797	65.2	943	77.2	510	70.1	553	76.0	+12.0	+5.9
Children			1222	728	756	61.9	818	66.9	513	70.3	503	69.1	+ 5.0	−1.4
Urban Negro Mothers	14	12	364	312	297	81.6	295	81.0	252	80.8	259	83.0	− 0.6	+2.2
Children			364	312	245	67.3	267	73.4	213	68.3	225	72.4	+ 6.1	+4.1
TOTAL	112	98	5824 **	5096 **	4166	71.5	4434	76.1	3815	74.9	3900	76.5	+ 4.6	+1.6

* Highest Possible Score = N (number of subjects) × 26 (number of questions)
** Highest Possible Score for mothers and children combined
\+ Percent of correct responses out of maximum possible score.

Table 29. Differences Between Before and After Tests by Frequencies of MINFD Scores for Control and Experimental Groups of Mothers of Boys and Girls

DIFFERENCES	FREQUENCIES			
	Boys		Girls	
	C	E	C	E
− 7	0	0	0	2
− 6	0	1	0	0
− 5	0	1	1	0
− 4	0	1	0	0
− 3	3	5	3	4
− 2	4	4	5	6
− 1	5	5	7	3
0	11	9	8	10
1	6	9	12	1
2	8	3	4	6
3	6	4	4	7
4	3	3	2	5
5	0	8	3	0
6	0	3	1	3
7	1	2	1	1
8	0	1	0	1
9	0	2	0	0
10	0	1	0	0
11	0	0	0	0
12	0	1	0	0

occupations. Over 60 percent of the girls selected nursing or teaching as their career choice. Boys' occupational aspirations were more diversified than those of the girls.

Similarly, no significant difference was found as a result of the experiment between what the mothers aspired to and what they expected in the level of occupations for their children. When adjustments were made for associated characteristics of this differential, a significant difference among subcultural groups was found. There was a positive change for urban Negro, no change for rural whites, and a negative change for rural Negroes.

Academic Motivation

Academic motivation seemed to be entirely independent of the experimental condition. The experimental program seemed to have no effect upon

Table 30. Differences Between Before and After Tests by Frequencies of CINFD Scores for Control and Experimental Groups of Boys and Girls

DIFFERENCES	FREQUENCIES			
	Boys		Girls	
	C	E	C	E
− 8	1	0	0	0
− 7	0	1	0	1
− 6	0	1	2	0
− 5	3	2	1	1
− 4	1	5	0	2
− 3	2	2	6	1
− 2	2	5	7	3
− 1	11	9	7	3
0	4	11	7	6
1	8	7	7	5
2	5	4	3	7
3	4	6	6	7
4	4	4	2	3
5	1	3	2	2
6	0	1	1	2
7	0	0	0	1
8	0	1	0	2
9	1	0	0	0
10	0	0	0	0
11	0	0	0	1
12	0	1	0	0
Total	47	63	51	49

the children's academic motivation as an indirect result of interaction with their mothers. No significant relationship was found between positive and negative scores and sex of child or between the experimental and control groups.

Intervention Program for Mothers

One of the objectives of the experimental group meetings was to stimulate interest in guiding the child in career planning. Evidence of this was measured through items relating to mothers talking with their children about jobs and

the frequency with which children reported thinking about the kind of job they might like.

Mothers Talking with Children

The mothers were asked whether they ever talked with their children about the kinds of jobs they might have and with what frequency they talked. Results showed that after the group meetings mothers talked more with their children about jobs and career planning. Mothers in the experimental group had a significantly higher mean increase (.5625) in frequency of conversation with their children about career planning between *before* and *after* tests than did mothers in the control groups (increase of .0102) (t-test significant at .0001 level). This is evidence that the programs stimulated the mothers to talk more with their children (at least they reported talking more) about career planning, one of the most crucial evidences of the effects of the experiment.

Children Thinking about Jobs

As an indirect result of mothers having attended group meetings, children thought more about jobs and career planning. Overall, experimental students showed a mean increase of .1071 (replies were on a three point continuum) while control students decreased by .1122. A significant difference was observed between girls in the experimental and control groups in the amount of time they thought about jobs. On the other hand, there was no significant difference between experimental and control boys, although the direction of the difference was the same as for girls.

Evaluation of Program Effectiveness

The mothers' ideas about the success of the group meetings and the program plans were ascertained during the after interview. These evaluation summaries and some general observations made by the group leader and the researchers are summarized here.

Mothers' evaluation of group meetings. The interviewers reported that the mothers willingly complet[illegible]e evaluations and then continued to talk about the group meetings.

Each of the mothers evaluated the materials and methods employed in the group meetings as to their helpfulness in understanding the ideas presented in the program. All 24 mothers reported the group leader was the most helpful. The next most helpful aspects (mentioned by 23 of the 24 respondents) were the speakers who told about themselves; those who presented information on educational opportunities, schools, scholarships, and loans; and the young people who told about their educational and work experiences after high school. When mothers were asked in another question to state the best part(s) of the meeting, they ranked speakers first and leaders

and discussion periods second and third respectively. (This was a consistent finding throughout all experimental groups in the regional study).

Job charts and career ladders were rated "very helpful" by 23 respondents. These and other visual materials illustrating specific lesson points were enthusiastically received. Mothers responded to the leader's questions regarding the points illustrated on the job posters. They remembered many of the charts and referred to them in their comments.

Although the mothers enjoyed the flower-making and bottle-decorating activities for social reasons, only 18 reported these activities as being "very helpful" in their understanding of important ideas from the programs. When asked to report the "least helpful" parts of the group meetings, the mothers most often mentioned these activities, but added that they did prove a point. The refreshment periods were also listed as "least helpful" activities.

The Widening Occupational Roles Kit was used by 18 of the 24 mothers, 13 of whom reported that these were "most helpful", two "somewhat helpful", and three did not respond. It seems that those who were willing to check out the materials found them to be helpful. The mothers would check out the materials, return them the next week and exchange them for different job descriptions. Some children had requested that the mother select a specific folder for them to read. Several women suggested that they exchange materials during the week through their school children.

The division of time allowed for the "leader-presented" program and the discussions was evaluated by three questions. Nineteen of the twenty-four thought that enough time was allowed for discussion while the remaining five answered "no" to the question. Eleven stated that they would have liked for the speakers and the leaders to talk more; thirteen, however, indicated they would not have liked that. Seven mothers would have liked to talk more about their own children, but sixteen said "no" to this question.

In considering the time, place, and publicity of the meetings, 16 of the 24 mothers felt that the three meetings planned for the experimental phase were adequate, while eight reported that they would have been pleased with more than three meetings. Although some reported that they would have liked more meetings, it might have been difficult to sustain the high degree of interest for many more meetings without altering the program format.

After considering community and school activity patterns, the effort to schedule the meetings at times which suited the majority must have been successful. Respondents tended to answer "the best day" as the one on which their meetings were held. Night meetings were best for all mothers.

The most desired means of publicity were announcements brought home from school by the children, followed by letters and announcements mailed to the home. Six preferred a home interview and five thought that telephone contact would be best. The low number responding "telephone" as the best means was probably due to the fact that few of the families had telephones.

The selection of the school as the best place to hold meetings was unanimous. This was reassuring, since an effort was made to choose a location that would be widely accepted by those attending. Transportation and child

care were not problems for any of the respondents.

Repeatedly, mothers suggested that similar meetings be held in the future and they indicated an interest in supporting such programs on a continuing basis. This reinforced the possibility of offering such programs through PTA study-discussion groups, Extension Homemaker Clubs, as well as 4-H youth groups.

All of the women reported that they would have participated without receiving payment.

Researchers' observations and recommendations

Certain positive outcomes of the group sessions were not measurable by the data. Perhaps most important was the pleasure most of the mothers seemed to receive from participating in the meeting and thinking about topics they had not previously considered.

After evaluation of the three group meetings and consideration of the mothers' suggestions, recommendations were made for persons wishing to conduct similar group meetings. Suggested activities that might be included in program plans were: provide classes for both parents early in the first year of the young person's high school career to discuss ways to guide children in selecting educational paths; allow guided discussion of educational-occupational goals and problems; and plan meetings for parents and students with representatives of local businesses and employment agencies. Another activity suggested was encouraging classes in "methods of counseling" to help parents understand and work with their children's problems. Such activities could emphasize the importance of developing rapport between parents, children and counselors, thus setting the tone for an atmosphere that would foster mutual exchange.

Mothers learned through the experimental sessions that is was important to encourage children early. They realized that some of their older children had not benefited from things that they as parents might have offered. Therefore, they tended to think about working with their current upper level high schoolers rather than with their younger children. The most constructive program would offer continuing counsel to families throughout their children's school years, motivating children to stay in school.

Mothers indicated an interest in several areas in addition to those included in the program plans. Some of the topics were: tests required for admission to a community college; specific training requirements for various jobs and "on-the-job" apprenticeships; projections for new occupations not currently known in their locality; special qualities that companies look for when hiring new employees. Additionally they wanted to know how to observe a child to find out his particular interests, how to find meaningful activities to maintain these interests, and ways to give children opportunities to make choices.

The use of local people as resource speakers seemed to be valued by group meeting participants. They were pleased that people they knew in the community would speak about themselves, relate how they made decisions and tell who influenced them.

Programs of this nature could be arranged with school counselors and parent educators. The school counselors could disseminate materials by offering a "check-out" service to children as well as to parents. In this way parents and children can be encouraged to communicate about jobs. The mothers in the study suggested that more information be provided in handout form that parents and children could keep for reference.

The researchers recommend that leaders be chosen who are aware of the local situation in preparation for such programs as were used in this study. Such leaders should understand the questions and concerns of the participants and be knowledgeable about local depressants to occupational aspirations, particular types of job discrimination, resources for higher education, pessimism about external factors affecting job future, and lack of control by the individual. It is recommended that more useful information relevant to the particular locality be presented rather than dealing in generalizations, because the mothers preferred down-to-earth specifics after they had grasped the idea. They frequently asked questions about specific school and job situations. Many related their questions to personal concerns.

The results of this study as indicated by the test scores probably tell only a fragment of the story. Some of the most important and most lasting facets of the group meetings cannot be expressed quantitatively with the data. Because of the limitations of the research procedures employed, there may be a gap between the testable results found and the impact of the personal experiences of mother-child communications.

Evidence from this study and earlier ones was that parental affection, independence training and high parental expectations facilitate the child's feelings of personal worth and need for achievement. Such findings support the need for continuing education for parents in order that they may assist their children in career and educational planning.

Implications of the Experimental Phase

Four important implications seem evident from the results of the experimental phase.

1. Conditions created by the experimental program increase mother-child interaction with regard to career planning.

Sandis (1968), in studying parents' influence on students' educational plans found that parent-child consensus regarding educational plans seemed independent of parents' educational background or children's scholastic standing. She also found that parent-child consensus seemed to depend on the child's perception of his parents' plan for him and that parents' plans are strong predictors of a student's educational plans.

With this in mind it seems reasonable that one outcome of increased mother-child communication would be the child's clearer perception of his parents' occupational and educational plans for him. Because of a mother's

importance to her child she can be equipped to exert an unequalled positive influence upon the child's career orientation. Regardless of the content, an improved communication could reinforce the child's motivation to achieve.

2. The data imply that in the realm of career planning mothers may have greater influence upon their daughters than they do upon their sons.

There was a significant difference between experimental and control girls, but not boys, regarding the amount of time spent thinking about occupational possibilities. Perhaps this difference is merely that mothers and daughters spend more time together, so there is more possibility for communication. Walters and Stinnette (1972) have pointed out that although most of the literature is concerned with mother-child relationships, there is increasing evidence that fathers also exert considerable influence upon their children.

The data in this study imply that in considering work and its requirements, there are individuals more important as significant others to adolescent boys than are their mothers. Also, literature on adolescence generally seems to diminish the parental importance and increase the peer importance in terms of impact upon an adolescent's role learning. Some of youth's decisions reflect parental values and other decisions reflect values of age mates (Walters and Stinnett, 1972). Thus, for boys the mother may not be the best intervenor.

3. Parents that participated in the experimental program not only enhanced their capacity to assist and encourage their children, but actually enjoyed the meetings and were themselves benefitted.

The results of the objective data and the subjective assessment of the group leaders indicated that the mothers welcomed participation in such an important matter.

The implication of this finding is that the more parents can be involved in the active career planning of their children, the greater will be the benefit to their children. These findings agree with previous studies such as the one by Willman (1967) in which it was observed that parental involvement in Head Start Programs aided in the development of academic achievement and that higher parental participation accompanied ever higher achievement. This implication is that programs geared to raising children's academic achievement should involve the parents as much as possible and provide educational programs for them.

Studies (Walters and Stinnett, 1972) other than the one reported here have concluded that parental warmth is one factor which influences children's occupational choices as well as their academic achievement. Evidence from this study indicates that the mothers exhibited warmth toward their children and a sincere interest in their children's welfare. However unrealistic they are, the high aspirations of the children may reflect the parental caring, warmth, and personal strength exhibited by these mothers. Lacking financial resources, low-income parents may use their warm relationships with children to help them achieve as much as possible.

4. No experimental program can be expected to have unidirectional results, particularly when the overall objective is to influence children through their parents.

In reviewing research in parent-child relationships over the decade of the 60's, Walters and Stinnett concluded that there is no simplistic explanation of causality in parent-child relationships. Children are powerful influences themselves and interaction effects are often operative between them and their parents, even if these are unknown. This study's experimental condition appeared to cause a variable effect among the three subcultures in several instances.

It is unlikely that any experimental program would affect a variety of subcultures uniformly, because as slight changes occur in a population, so may the outcome of interactions of parent-child relationships. To know what effect any variable may have upon children when applied to their mothers, one must be able to identify contingent conditions. Thus, it is ambitious to expect unidirectional results when dealing with various subcultures and many parent-child interactions.

In finally assessing group discussions as a means for influencing the educational and occupational plans for low-income youth, the conclusion is that such programs are laden with difficulty. There is too much to be accomplished in too brief a time span. The target population may have limited abilities (such as reading), and likely may have more varied and more immediate needs than those on which the discussions center.

The group discussions worked, however, in spite of these drawbacks and stated objectives were achieved. Even though the programs may not be the most effective and efficient possible, the evidence seems clear that such group discussions are one possibility by which direct positive intervention may occur in the lives of low-income youth.

SUMMARY AND IMPLICATIONS

The guiding research questions of this study focused on the level and nature of ambition to achieve among youth in low-income subcultures, the factors relating to varying degrees of ambition, and the extent to which children's career thinking and planning may be influenced by group sessions with their mothers. The study design included two phases: (1) the baseline phase in which a large sample survey provided background information for analysis and for the design of the second phase; and (2) the experimental phase which included the group meetings with mothers.

The research subjects for the N. C. baseline sample included 217 children and their mothers, drawn from three geographical communities in one county in the Appalachian region of the state (regional sample totaled 1412 mother-child pairs). Data from this baseline survey confirm the high educational and occupational status projections of today's youth, regardless of race, age, sex, socio-economic status and residence. In contrast to earlier

studies, this study showed only small differences in stated aspirations and expectations of youth who differed on these variables. The problem, then, no longer appears to be that of raising aspirations of lower status youth.

In spite of the current emphasis on women's role and a unisex approach, the data showed differences in the occupational aspirations of girls and boys, and of their mothers' aspirations for them. Girls focused on traditional occupations for women—teacher, nurse, and secretary. However, a change is evidently in process even in relatively deprived subcultures such as those in this study. This is indicated by the finding that the daughters aspired to higher occupational and educational levels than mothers projected for them. Boys' projections ranged more widely than the girls'—from high professional jobs and professional athletics to semi-skilled and unskilled occupations. Largely, the mothers were in agreement with their sons; however, they tended to project somewhat higher levels than the sons themselves projected.

In considering overall status projections, the similarities found among the boys and girls and among the subcultures were more numerous than the differences. This is not surprising if one considers the view that America is one society and has a universal culture, with subcultures shaping the lives of their members in more limited ways.

This study first dealt with fifth and sixth graders, a population which has not been considered very often in career aspirations studies. It was clear that these children, like the middle-class high school youth most often studied, had internalized a somewhat universal occupational status hierarchy and the American values regarding formal education. Their verbal statements reflected these aspirations more than anything else.

Even though there was similarity in the children's stated aspirations and expectations, the data suggest that origins of educational and occupational projections are not as similar. While levels of stated aspirations and expectations were uniformly high for both, occupational and educational projections in the sample depended on somewhat different antecedent variables and paths of influence. For example, educational projections depended more on measures of individual traits such as self-concept, liking for school, and family background than did the occupational projections.

Children's projections and mothers' projections for them were closely related. Perhaps there was a two-way interactive influence between such influences as family background, child's self-concept, IQ, the characteristics mothers value in their children, children's perceptions of their parents, and the children's projections.

Although the regional analysis showed the sex of the child to be a greater differentiator of status projections than race or urban-rural residence, there were some differences between race-residence groupings. In general, the rural whites seemed to conform somewhat more to findings of other studies than did the other race-residence groupings in the region.

Intelligence quotient appeared to be an important variable in this study because it was related to a number of other variables, and their relationships generally conformed to expectations. There was a strong relationship between IQ and the children's educational projections, but IQ was not related

to children's occupational projections (except with the urban blacks). This suggests that urban youth, more than rural youth, may be aware of the relationship among occupational success and scholastic ability and attainment. However, IQ was strongly related to [illegible] educational and occupational projections of the mothers. The IQ tests [illegible] the results were known only to the researchers; therefore, this relationship indicates that the mothers' perceptions of the children's success related behavior generally corresponded to the scores. They must be at least somewhat aware that attainment in occupational areas is contigent upon some of the dimensions that are measured by the IQ test.

Even though the data showed that the influence of socio-economic status and family background was strong, it was found to be more indirect than previous research had indicated—family background was mediated by other variables. It was possible to refine the analysis and disclose paths of influence from family background variables to children's projections since the regional sample had a large number of cases and range of variables. The fact that the North Carolina sample, made up entirely of low income households yielded differences within the narrow range of education, income, and social participation suggests that background factors would be even more influential in a sample including all socio-economic levels.

Unlike other similar studies the present study included the child's perception of the mother's loving, punishing, and demanding behavior using questions developed by Bronfenbrenner. The behavior characteristics were found to be strongly related to the child's self-concept, with punishing being negatively related and loving and demanding positively related. However, the influence extended only to educational projections via the child's liking for school and not to his occupational projections.

The importance of mothers in the career projections process was indicated by mothers' projections showing up both as direct and indirect influences. Variables with major direct relationships to children's occupational projections were mothers' projections for the children, their behavioral values for the children and the children's reports of having talked with their parents about career hopes. Factors with indirect relationships to children's occupational projections were family background and IQ mediated by mothers' status projections. Children's educational projections were most directly associated with liking of school, IQ, and mothers' educational projections for them, while they were indirectly related to self-concept, IQ, and family background via the child's liking for school, and the mother's educational projections for the child. The fact that family background appeared only as an indirect influence indicates that it does not automatically increase the children's aspirations. The mothers' emphasis on "character" and "outgoing" behavior has a direct influence on occupational projections but only as indirect influence on educational projections.

The second phase of this study was an experimental group discussion program designed to influence information, attitudes, and aspirations concerning education and occupations among low-income mothers, and indirectly among their children as a result of the mother's interaction with them.

From the North Carolina baseline sample, 21 mother-child pairs were placed in the experimental group and 15 pairs in the control group. Data from these pairs were analyzed with those from the regional sample from rural and urban Negro and Appalachian white subcultures (total samples was 112 pairs in the experimental group and 98 pairs in the control group). Sample children were in the seventh and eighth grades during the experimental phase.

Data were collected from both mothers and their children in a standardized questionnaire (interview method) before and after application of the experimental program. The experimental treatment included three, two-hour structured group discussion meetings held in consecutive weeks. The program content was designed to help mothers understand the unique interests and abilities of their children, the variety of work opportunities for their children, the relationship between education and occupations, the relationship between children's interests and career possibilities, and their own roles in motivating children toward career planning.

Five general findings were evident after the experimental intervention: (1) mothers talked more to their children about jobs and career planning as a result of group meetings; (2) children thought about jobs and career planning more frequently as an indirect result of their mothers having attended the group meetings; (3) both mothers and children experienced an increase in the amount of job information possessed; (4) there was a reduction in the distance between the children's level of their occupational aspirations and occupational expectations, and (5) the experimental program appeared to have had no effect upon the children's academic motivation as an indirect result of interaction with their mothers.

Four implications seem salient from the experimental phase results.

(1) Conditions created by the experimental program have an effect of increasing mother-child interaction with regard to career planning, thus children may have clearer perception of their parents' occupational and educational plans for them and mothers may be reinforcers to the children's motivation to achieve.

(2) The data in this study imply that in the realm of career planning mothers may have a greater influence upon their daughters than they have upon their sons. With this and current literature reports on adolescence in mind, it would seem that significant others are important to consider in career programs for boys. It may be that more attention or special procedures are required if the influence of mothers on sons is to be increased at this stage.

(3) Parents that participated in the group meetings not only enhanced their capacity to encourage and assist their children, but they enjoyed the meetings as well and personally benefited from them. The implication is that the more parents are actively involved in career planning with their children, the greater will be the benefit to the children and also to the parents.

(4) No experimental program can be expected to have unidirectional results, particularly when the overall objective is to be accomplished indirectly for children through their parents. Yet, in spite of drawbacks such as differences among subcultures and difficulty in assessing group discussions, stated objectives of the group discussions were achieved. The group approach seemed to work for mothers and offers promise as a means of influencing children's thinking. Even though the programs may not have been the most effective and efficient possible, it seems evident that such endeavors are one possibility in which positive intervention may occur in the lives of low-income youth.

If such approaches are attempted in the future, a more intensive program might include several meetings over a long period of time with the purpose of conveying and discussing more specific occupational and educational information. Procedures could be developed to secure commitment from the mothers to learn about and discuss careers with their children. Possibly some individual counseling models for children and their mothers in addition to group meetings could be designed.

The present study demonstrated the availability and usefulness of local resource persons in group approaches to career education. A result of success in this area indicates that it is not necessary to import "experts" from distant places when there are personnel in local industries and counselors from local educational institutions who can be called on. For further experimental studies and for programs designed to use the group lesson-discussion approach, the findings of this study could be used for tailoring content of the sessions to persons of different racial, residential, and class backgrounds and to boy-girl similarities and differences regarding career thinking and possibilities.

In the implementation of the lesson-discussion group meetings it became clear that refreshments and some socializing time were functional. These segments were designed so as to hold the interest of the mothers and illustrate points about child development and career thinking.

Another possibility for application is that the group approach and the techniques used in this study might also be used for working directly with youth groups in career education. The programs would seem to offer promise for 4-H clubs and similar youth organizations as well as for school counselors who wished to extend their programs beyond the school walls. Some attention in such programs could be directed to increasing the accuracy of the children's perceptions of their parents' aspirations for them. This focus, coupled with attempts to increase the quality of the parents' projections, would improve the career process since the present study provides evidence that children do tend to reflect their mothers' projections. Consensus between parent and child about the child's career plans should enhance the possibility of achievement.

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